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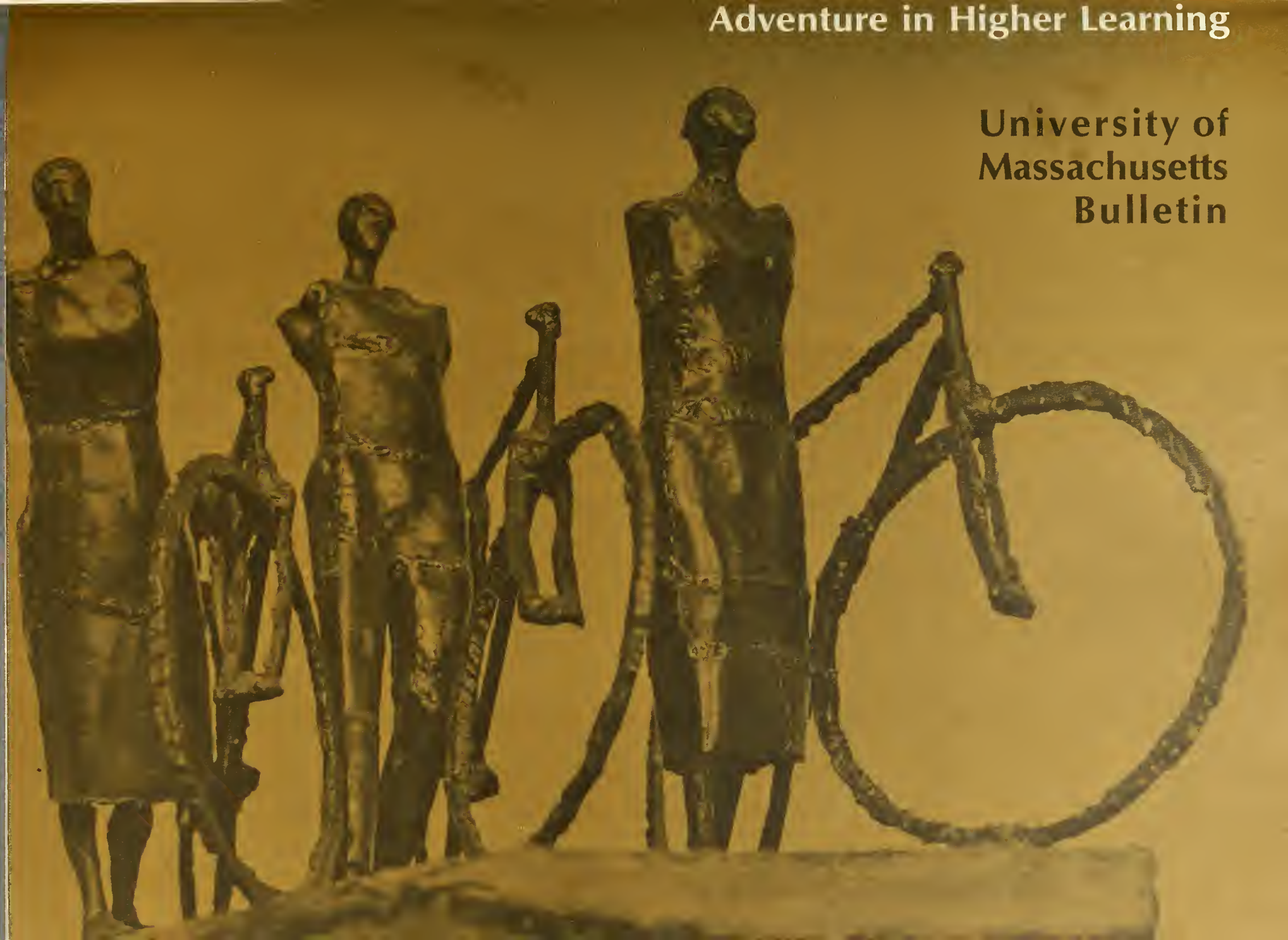
Adventure in Higher Learning

University of Massachusetts Bulletin



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AMHERST, MASS.

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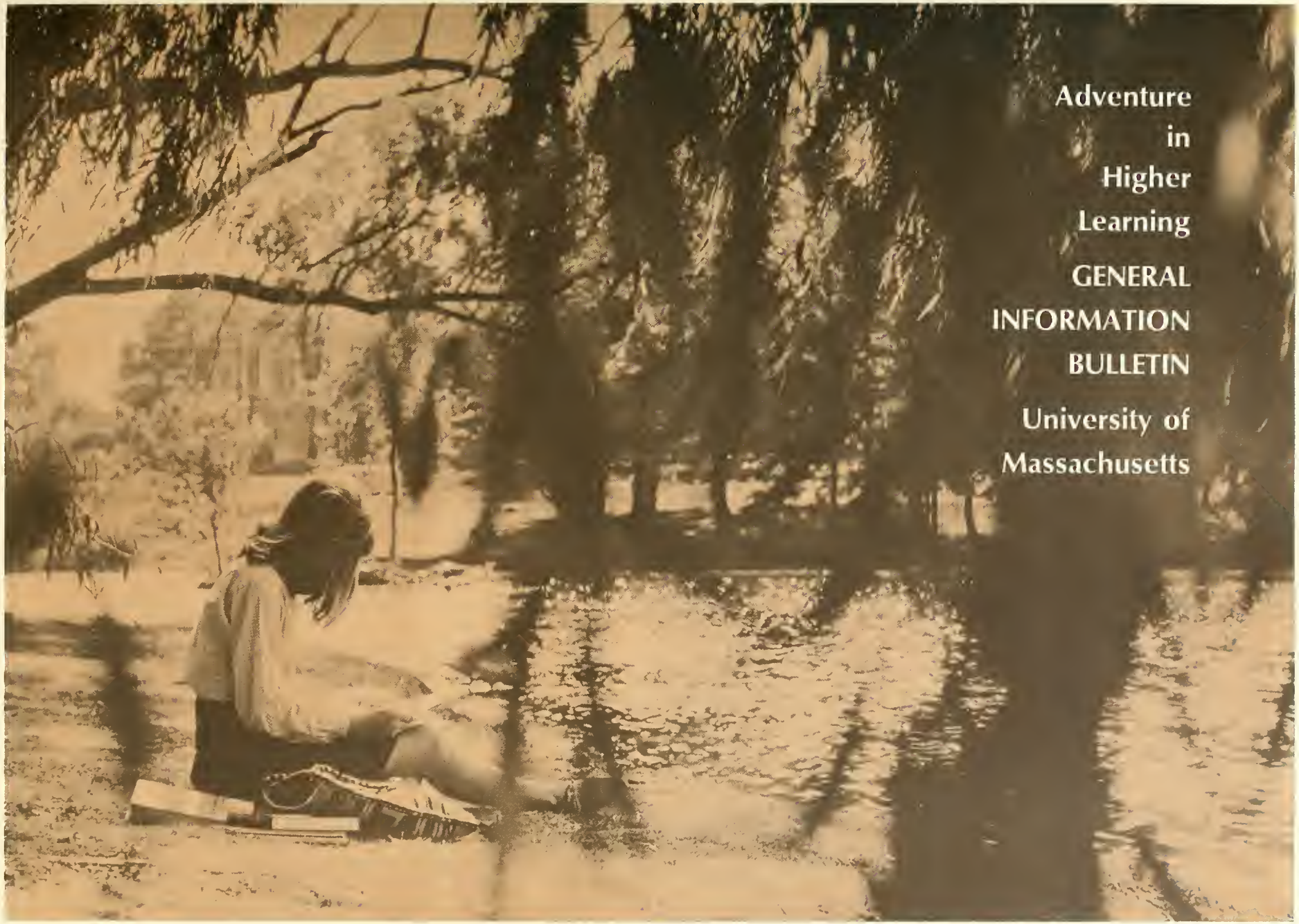
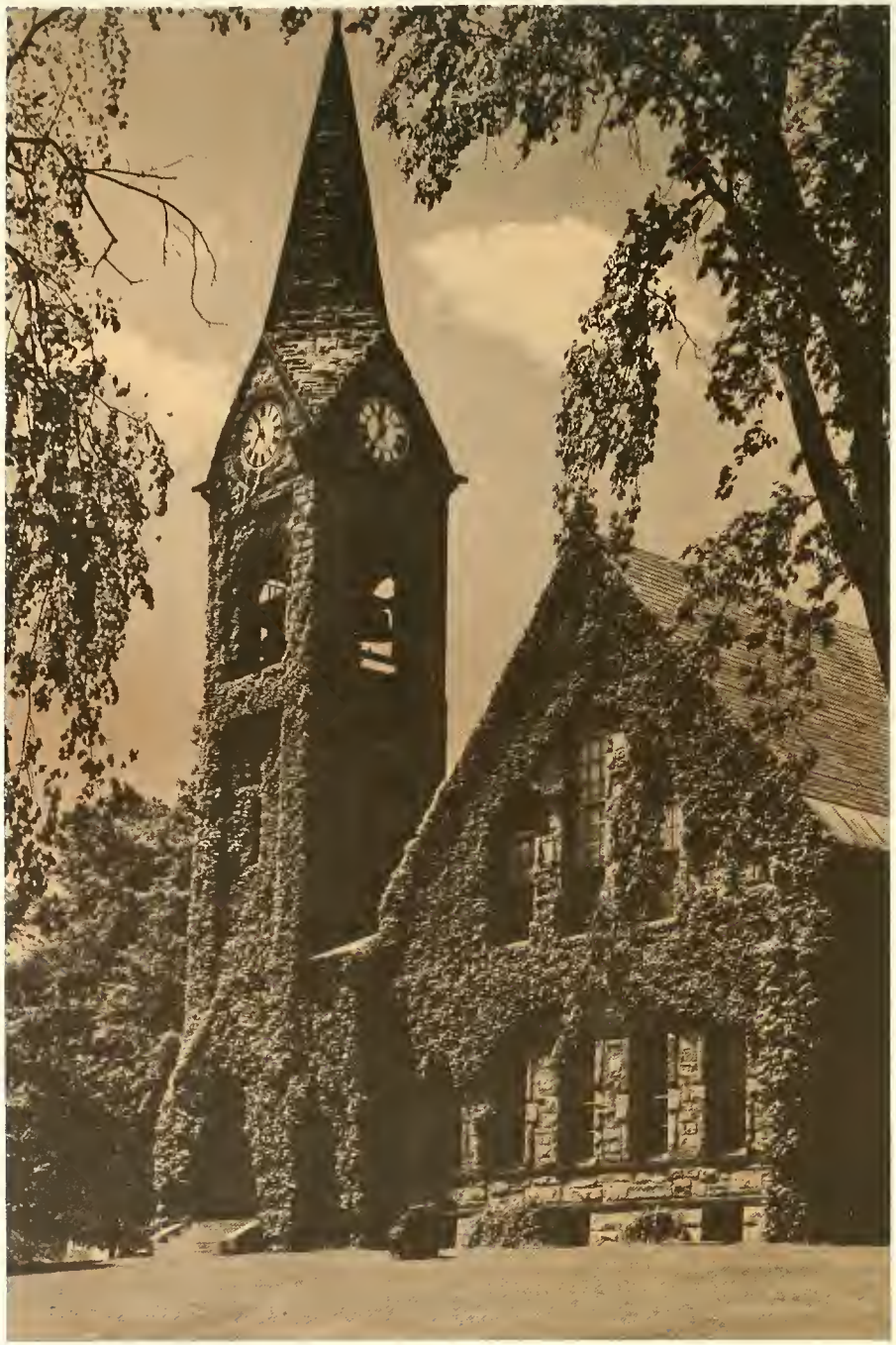


Adventure in Higher Learning

GENERAL INFORMATION BULLETIN

University of Massachusetts



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A WORD FROM THE PRESIDENT

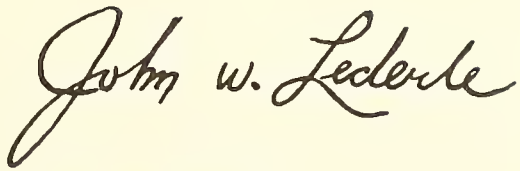
In the pages that follow, you will find the University of Massachusetts described as "a place to live, to work, to learn." The University is, in other words, not only a place — but an opportunity. And the emphasis is on people, on teachers and students, on the men and women who contribute to and make our society what it is.

The full resources of the University are therefore always at the disposal of our students, whom we regard as the most important resource of all. And certainly if the young people we accept are to live, work and learn *well,* then we must be sure that they are *interested* and *dedicated people,* who will profitably and effectively participate in all that the University has to offer.

This is important, for the University itself is committed to serving national objectives in one of the most challenging eras of world history. We therefore see our students as integrally involved in helping our society to grow and to contribute in all significant ways to fulfilling these objectives.

In the process, students can derive enjoyment and satisfaction in the largest measure. The University has rich opportunities both in its curricular and extracurricular activities. Those who wisely balance their programs, who place studies first and carefully select other activities, can experience the "connection between knowledge and the zest of life" that is reflected in the program of all true universities.

Cordially,



JOHN W. LEDERLE
PRESIDENT

THE UNIVERSITY

The University of Massachusetts is the state university of the Commonwealth, founded in 1863 under provisions of the Morrill Land Grant Act passed by the United States Congress one year earlier.

The University is a member of the great community of Land Grant colleges and state universities serving the nation as principal resources of higher education for the country's citizenry. Incorporated as the Massachusetts Agricultural College in April, 1863, the institution was opened to a handful of students in 1867. Rooted in the liberal arts tradition (its early presidents were graduates of such colleges as Dartmouth, Williams, Amherst, and Harvard), it has grown steadily from the four teachers and four wooden buildings available for its opening session. Reflecting the broadening interests of its students, the General Court of the Commonwealth of Massachusetts authorized a second name, Massachusetts State College, in April, 1931. Sixteen years later, in May, 1947, the institution became the University of Massachusetts.

Situated in one of the most picturesque sections of the state, the University on its Amherst campus joins with its academic neighbors — Amherst, Smith, and Mount Holyoke Colleges — in maintaining the rich tradition of educational and cultural activity associated with this beautiful Connecticut Valley region. The University's campus in Amherst consists of approximately 950 acres of land and 110 buildings. These structures include classroom and laboratory facilities as well as dormitories and other units.

To augment the Commonwealth's facilities at the university level, the University of Massachusetts has planned and will open a campus in Boston at 100 Arlington Street in September, 1965. The new campus will offer educational programs comparable in quality to those available at Amherst, but will be a commuting institution. During the year 1965-66 the program will be largely at the freshman level as it is planned to expand the offerings by one class each year. Classes will be offered during the day, late afternoon and evening.

The total resources of the University of Massachusetts are dedicated to giving all qualified students full opportunities to develop their capabilities for service in a growing society.

ADMISSION - - HOW TO GET READY

The information given below applies to both the Amherst and the Boston campuses. For more detailed information regarding the University of Massachusetts-Boston, contact the Admissions Office located at 100 Arlington Street, Boston. (Tel. 542-6500).

Applications for admission may be obtained by writing the Admissions Office of the University. There is no application fee required at the University of Massachusetts. High School seniors are advised to file their applications early in the senior year. Out-of-state and foreign applications must be received and completed prior to February 1st, for fall admission. College Board tests should be taken no later than the January testing date. If they are to be considered during the normal processing, in-state applications should be received and completed by March 1st. Qualified applicants are admitted at the beginning of the fall and spring semesters and at the beginning of the summer session.

Campus Scene.

All applicants for admission, except veterans, must take the Senior Scholastic Aptitude Test given by the College Entrance Examination Board. In addition, the University requires three College Board Achievement tests, including English Composition of every applicant whose scholastic record in grades 9 through 11 contains four or more grades below the college recommending mark of his high school. All postgraduate students and out-of-state students are also required to submit these three Achievement tests. All College Board test reports must be sent directly to the University from the College Board Testing Center. The applicant himself must notify the Board that he wishes his scores sent to this University. The Scholastic Aptitude Test may be taken on any of the scheduled dates, although the December testing date is preferred. The March and May dates are too late for seniors, but are appropriate for juniors taking the test for guidance purposes.

The University recognizes the importance of a first-hand acquaintance with the colleges a student may be considering, and hopes that he will find it possible to visit the campus for his own information and satisfaction. He should be assured, however, that it will not disadvantage his application if he is unable to do so. The University holds several Guest Days for high school seniors in the fall. These are particularly appropriate times to visit the campus and high schools are notified concerning them. An interview is, however, not part of the admissions procedure. It is physically impossible for the admissions staff to interview all applicants; therefore, personal conferences will be scheduled only if the candidate or his guidance counselor has a question which cannot be readily resolved by correspondence. At the Amherst campus, group interviews are scheduled for in-state candidates at 10:00 a.m., and at 11:00 a.m. for non-residents on Saturdays, excluding Holiday weekends, during the academic year. Guided tours will be available at the conclusion of each group interview.

Those interested in visiting the Boston campus should contact the Admissions Office at Boston. If it seems necessary to schedule an admissions counseling conference, it would be prudent for the applicant to make certain that his application and academic records have been received by the Admissions Office prior to his visit so that his situation may be discussed intelligently.

In most cases applicants will be notified by letter during April of the action taken on their applications. Applicants who present strong academic records, enthusiastic school recommendations, and satisfactory College Board scores will receive earlier notification. This early notification should reassure the well-qualified applicant regarding college entrance and enable the student who has selected the University as his choice of college to settle his plans. Applicants accepted at an early date, however, are under no pressure to make a final decision in regard to their choice of college before the Candidate's Reply Date. In this way the burden of multiple applications on high school guidance counselors and college admissions offcers may be lessened.

High Ranking High School Juniors

Applicants who have completed with very high academic standing work through the junior year may be admitted to the University for the semester following the junior year. Such applicants must take the Scholastic Aptitude and three achievement tests given by the College Board in May of the junior year and compile scores satisfactory to the University. They must be highly recommended by their high school principal. The maturity and social adjustment of the applicant will be considered along with his intellectual development. Such applicants should apply before the end of the junior year.

Veterans

Veterans are not required to take the Scholastic Aptitude test. Instead, they must take entrance examinations in Algebra and English and a College Qualification test. These are administered by the University Testing Service in December, May and August. Information in regard to these tests will be furnished the veteran at the time he files his application for admission. Six months Active Duty for Training students are not considered veterans. They must take the College Board Scholastic Aptitude test rather than the Veterans' Examinations. Veterans in college or in full time postgraduate studies at present are considered in the same category as other applicants and do not take the Veterans Tests.

Bachelor of Vocational Agriculture Degree

Superior graduates of vocational schools of agriculture in Massachusetts and vocational agricultural departments in Massachusetts high schools may be accepted for the Degree of Bachelor of Vocational Agriculture, provided:

They are unqualifiedly recommended by the Vocational Division of the Department of Education as *bona fide* Vocational Graduates with superior ranks; they can present at least 16 units of certified entrance credits, approved as to quality and quantity by the State Department of Vocational Education; they successfully pass the English and College Qualification Test administered by the University Guidance Office. Those who have had algebra will be required to include the algebra examination.

Transfers

A limited number of transfers from approved colleges may be admitted. Since applicants for such transfer exceed the number that can be accepted, they are placed on a competitive basis. Ratings will be based upon high school and college records and on the College Board Scholastic Aptitude Test, which is required of all transfers. Any student who has been previously enrolled in a college is considered a transfer and must file a transfer application form. Applicants for transfer should write the Registrar for a transfer application. At least 45 semester credits taken in residence at the University are required of all transfers who are candidates for the Bachelor's Degree.

SUBJECT REQUIREMENTS

The subjects of preparatory study required for admission call for the satisfactory completion of a four-year high school course or its equivalent and are stated in terms of units. A unit is the equivalent of at least four recitations a week for a school year. High school graduation alone is not sufficient. The applicant's record must indicate capacity for handling the quality of scholastic work which the University has established as its standard of achievement.

Sixteen units of secondary school work must be offered, selected according to the following requirements:

College Preparatory Mathematics	3*
English	4
Foreign Language (2 years of 1 language)	2
U. S. History	1
Laboratory Science	1

The remaining units are elective and may be selected from the following subject matter:

a. Mathematics
b. Science
c. Foreign Language
d. History and Social Studies
e. Free electives (not more than four units)

Free elective subjects are those not included in groups a-d, as for example: Music, art, drawing, typewriting, aeronautics, agriculture, home economics, etc. Such free electives are allowed in order that the student who wishes may have some opportunity to elect other high school offerings, while at the same time covering the fundamental requirements for college work.

Students planning to major in the physical sciences and mathematics should, if possible, offer two years of algebra, one of plane geometry, and one-half year of trigonometry. Analytical or solid geometry, chemistry, and physics, and an introduction to analytical geometry and calculus are also strongly recommended.

*Preferably two years of Algebra and one of Plane Geometry.

Students planning to pursue an engineering curriculum should offer two years of algebra, one of plane geometry, and one-half year each of trigonometry and solid geometry. Chemistry and physics are also advised. Those deficient in the mathematics should plan to cover it during the summer prior to entrance or expect to take five years to complete the college course.

Candidates who are deficient in any of the prescribed courses can be considered only if their over-all scholastic records indicate exceptional academic promise.

PHYSICAL EXAMINATION

Physical examination by their personal physician is required of all entering freshmen, re-entering students and all students participating in athletics. Physical report forms for this examination will be mailed to each student with the bill for the first semester and must be completed and returned to the University Health Service 10 days before the opening of the semester. Evidence of a *successful* smallpox vaccination and active tetanus immunization are required.

VETERANS' AFFAIRS

The Veterans' Coordinator is a staff member of the Placement and Financial Aid Services. All veteran affairs should clear through the Placement and Financial Aid Services.

Eligible dependents of veterans who are entering the University for the first time should have a Certificate of Eligibility at registration. This may be obtained from the nearest Veterans Administration office. Board, room, and fees must be paid in advance whether the student is enrolled under the G.I. Bill or not.

Veterans' dependents who are transferring to the University of Massachusetts from another institution or who have done summer work at another institution should present a supplemental Certificate of Eligibility at registration. This may be obtained through the veterans' office at the institution last attended.

WHAT IT COSTS TO ATTEND

AMHERST CAMPUS

Expenses vary from approximately $1,250 to $1,400 per year for the normally economical student. First year costs are usually greater than those of the other three years and there is less opportunity for earnings. Therefore, a student is advised to have a definite plan for meeting the expenses of the first year before entering.

The following estimate of a year's expenses, based chiefly upon last year's costs, includes only those items which are strictly university-related and does not include amounts for clothing, laundry, travel, etc. These costs vary slightly from year to year. Tuition for residents of Massachusetts is $200 per year and for others $600.

	Normal
Tuition (citizens of Massachusetts)	$ 200.00
Room in University residence hall or private home (approx.)	300.00
Board at University dining halls	448.00*
Athletic Fee	30.00
Student Union Fee	20.00
Student Activity Tax (approx.)	28.00
Student Health Services Fee	40.00
Student Medical/Surgical Insurance, 12 months' coverage (optional)	18.00
Books, stationery, and other supplies (estimate)	150.00
	$1,234 .00

INITIAL PAYMENT FOR FRESHMEN

The initial payment for first semester expenses required of freshmen at the time of fall registration is indicated below and is made up of the following items:

Tuition (citizens of Massachusetts)	$ 100.00
Room rent in University residence halls (approx.)	150.00
Board at University dining halls	224.00*
Athletic Fee	15.00
Student Union Fee	10.00
Student Activity Tax (approx.)	14.00
Student Health Services Fee	20.00
Student Medical/Surgical Insurance, 12 months' coverage (optional)	18.00
Physical Education Equipment Fee (men only)	10.00
Books, stationery, and other supplies	100.00
	$ 661.00

These are only approximate figures. A bill will be rendered to the parent of each student prior to the beginning of the semester.

BOSTON CAMPUS

The expenses involved in attending the University of Massachusetts at Boston will be appreciably lower than those attending the University of Massachusetts at Amherst. The major difference is the cost for room and board; since the University of Massachusetts-Boston was created as a non-residential college, its students will be living and boarding at home or under other non-college arrangements.

*Above plan for 7 days; 5-day plan available for approximately $370.00 per year or $185.00 per semester.

Certain other expenses which are obligatory at the University of Massachusetts-Amherst are not required for University of Massachusetts-Boston students.

The following schedule of tuition and fees includes only those items which are strictly college and does not include amounts for clothing, laundry, travel, etc. Expenditures for books, stationery, and other supplies is estimated to be $100 for all full-time students.

SCHEDULE OF ANNUAL TUITION AND FEES

	Full-time	*Part-time*
Tuition (citizens of Massachusetts)	$200.00	$100.00
Tuition (not citizens of Massachusetts) . . .	600.00	300.00
Student Activities Fee	30.00	20.00
Student Medical/Surgical Insurance, 12 months coverage (optional)	30.00	30.00

The initial payment for first semester expenses required of freshmen at the time of fall registration, is $145 for resident students and $345 for non-resident students.

TUITION

As a state institution the University of Massachusetts offers a low rate of tuition to all students entering from the Commonwealth. Eligibility for admission under the low residential rate is determined in accordance with the following policy established by the Board of Trustees.

A student must present evidence satisfactory to the Treasurer of the University that his domicile is in the Commonwealth of Massachusetts in order to be considered eligible to register in the University as a resident student. This means that he must have established a "bona fide" residence in the Commonwealth with the intention of continuing to maintain it as such.

The domicile of a minor shall follow that of the parents unless such minor has been emancipated. In case of emancipation the student, in addition to the requirements of these regulations, respecting residence, shall present satisfactory proof respecting emancipation. Minors under guardianship shall be required to present, in addition to the certification of the domicile of the guardian, satisfactory documentary evidence of the appointment of the guardian. No student shall be considered to have gained residence by reason of his attendance in the University nor shall a student lose residential preference during his continuous attendance at the University. The residence of a wife shall follow that of the husband.

The prescribed form of application for classification as to residence status must be executed by each student. Misrepresentation of facts in order to evade the payment of out-of-state tuition shall be considered sufficient cause for suspension or permanent exclusion from the University. Discretion to adjust individual cases within the spirit of these rules is lodged with the President of the University. Students receiving credit by special examination must pay $5.00 per credit to be received before the examination may be taken.

SUMMER ORIENTATION FEE

Members of the incoming freshman class attending the summer orientation program on the Amherst campus will pay a non-refundable fee of $15.00 to cover the cost of meals, housing, testing and counseling. Likewise, incoming freshmen accepted at University of Massachusetts-Boston will pay a non-refundable fee of $10.00 to cover the cost of testing and counseling.

Registration.

Studying in Library.

PAYMENT DUE DATES

In accordance with University policy, all charges for tuition, fees, board and room rent in University dormitories are due and payable twenty-one days prior to the date of registration of each semester. Bills will be rendered in advance and payment may best be made by mail. Students may not register until all University charges are paid.

A WORD ABOUT FINANCIAL AID

Scholarships, loans, and part-time employment are available for a limited number of needy and deserving students. A limited number of such awards are available to entering freshmen who have made outstanding records in high school. Applicants for scholarships must file the Parent's Confidential Statement prepared by the College Scholarship Service when the Admissions Application is sent, or no later than March 1st of the admissions year. Students may also apply for certain kinds of loans, including those available under the National Defense Student Loan Program, University loans (after the first semester of the freshman year), and the Higher Education Loan Plan (at the end of the freshman year). Also, students may engage in part-time work after the completion of the first semester of their freshman year. Information about each of these programs may be obtained by writing to the Director of Placement and Financial Aid Services. Dependents of veterans who are eligible for benefits may also apply to this office for information.

Scholarships and loans are available for students at the Boston campus.

A PLACE TO LIVE, TO WORK, TO LEARN

Goodell Library.

How can I make the most of my college career? Every student asks this question just before the start of his freshman year. Specific answers usually wait until the student is actually in college where teachers and advisers help him to decide on the major course of study he should pursue Often, of course, a student has already made a decision about his "major," and if the decision is based on a sound assessment of aptitudes and abilities, this is all to the good.

But even for students who are sure about what they want to "take" in college, the question is still very important. The danger in approaching college work lies in the assumption that this is, as with many other activities, "just a routine." As a student reads the general catalogue, he finds rules, regulations, requirements, and prescribed courses of study. All these tend to make him feel that the curriculum is indeed just a routine for getting enough credits to graduate.

For many students this is certainly true. But for the wise student, the word "routine" is supplanted by the word "adventure." The rules and regulations are not thereby eliminated, for every college must have the means of order and stability by which to achieve its basic objectives to which the various groups of required courses lead. But the good student recognizes that he need not work merely to satisfy *minimal* requirements: he can do much more. If he learns early that thought is not locked within the four walls of a classroom, if he is alive with interest, if he realizes that his four years in college will be the best he will ever have for stocking his mind and exercising his imagination, then his "prescribed course of study" will become a springboard to a fascinating realm of knowledge and ideas that only he himself can attain.

The following paragraphs, therefore, are simply intended to show what the University can offer a student, what it requires of him, and what he must do to fulfill these minimal obligations. Beyond these basic offerings and requirements lies the real adventure — the adventure in learning.

A YEAR-ROUND OPERATION

The University conducts its program on virtually a year-round basis. The regular two semesters of the academic schedule are supplemented by a two-term summer session in which a student can earn nearly the equivalent of a full semester's work. Combining the work of the regular academic year with a complete schedule of courses in the summer sessions, students can finish their college careers in three years instead of four. The summer session is open to all freshmen who wish to begin their college education immediately following graduation from high school. It is also available to high school juniors who are accepted for study at the University under the Early Admission Plan (see below under Program for Superior Students).

THE ACADEMIC PROGRAM

The University consists of two main divisions, the four-year undergraduate curriculum and the Graduate School. Instruction in the undergraduate program is assigned to the College of Agriculture, the College of Arts and Sciences, the Schools of Business Administration, Education, Engineering, Home Economics, Nursing, and Physical Education, and the Department of Public Health. A qualified student may enter any one of these units and work toward the appropriate bachelor's degree, as described on Page 11. The total program is built around a core of studies designed to provide a sound general background. Beyond this, the student elects a program within a particular branch of learning in order to prepare for advanced study in that field or for a career in one of the professions. Offerings in the various branches range from accounting to zoology, and a student electing any major course of study has opportunities for a comprehensive education in the four-year program. Descriptions of the courses of study offered in each of the undergraduate branches can be found in the section beginning on Page 12.

THE PRELIMINARIES: FRESHMAN ORIENTATION

All students entering as freshmen must attend a three-day orientation program at a specified time during the summer prior to entrance. The program consists of testing, counseling, and pre-registration for courses to be taken during the coming semester. Guidance and placement tests are given and scored, and each

student is assigned a faculty adviser who will help in the selection of courses and planning of a class schedule. On the final day of each of these periods, a special program is held for parents so that they may learn about the student's proposed courses and schedule for the fall semester, the results of the testing sessions, and the facilities and opportunities available at the University.

GENERAL UNIVERSITY SERVICES

The University is a community of individuals working toward a common goal — the acquisition and dissemination of knowledge. As a community, therefore, the institution has all of the adjunct resources needed to further that goal and to provide for the general well-being of the community's members.

Thus, the University maintains an extensive library system, both through the University Library and the 30 departmental and laboratory libraries. In addition, the University is a participating member in the Hampshire Inter-Library Center, housed at the University and containing journals, documents and reference sets for use in study and research. The Center is jointly operated by Amherst, Smith, and Mount Holyoke Colleges and the University under the Four College Co-operation Program engaged in by the four institutions.

Concerned as it is with the need for spiritual undergirdings for the educated man, the University gives support to the religious life of its students in various ways. It affords the use of facilities for student groups of all faiths, and it honors the work of the Campus Religious Council which provides a cooperative inter-relationship among religious groups. Chaplains are assigned to campus by the various faiths, and students are urged to meet with their own chaplain upon coming to the campus.

The University also maintains a Counselling and Guidance Office staffed by highly trained and skilled counselors. This service is available to all students who desire to learn more about themselves and their aptitudes. This office, besides offering specialized advising in addition to that normally given in academic departments, offers courses in reading and study skills in conjunction with the School of Education.

The University Health Service, housed in one of the newest buildings on campus, is concerned with the total health of individuals and groups, as reflected in the need for complete physical, mental and social well-being. The new infirmary contains a fully-equipped out-patient department, X-ray and laboratory resources, and physiotherapy facilities. The Health Service staff of physicians, technicians and nurses is devoted to promoting good physical and mental health, conditions of safety, and other factors affecting the health of students in the campus community. In addition, the University maintains a Speech and Hearing Center to assist students and others with speech and hearing problems.

GRADING SYSTEM

Enrollment in and graduation from the University involve both quality and quantity of work. The quantity of work is measured by the credits obtained by successful completion of courses. The quality of work is measured by grades. Each grade is equated with a quality point as noted below. The quality point average required for continued enrollment and for graduation is set by the Faculty Senate. At present the graduation requirement is a cumulative average of 1.80.

Grades are reported according to a letter system, as follows: A—Excellent, B—Good, C—Average, D—Passing (but not satisfactory), F—Failure, and Inc.—Incomplete. Quality points per semester hour are assigned as follows: A, 4; B, 3; C, 2; D, 1; and F, 0. To compute the semester grade point average, as well as the cumulative average, the total points earned are divided by the total credits carried. Any student whose semester quality point average falls below the cumulative requirement is warned of his status by the Registrar and informed of the rules governing dismissal. Students who achieve high averages are placed in one of three honors groups each semester, as follows: First Honors: 3.8 or higher; Second Honors: 3.4 to 3.7 inclusive; and Third Honors: 3.0 to 3.3 inclusive.

ADVISORY SYSTEM

In order that, from the day he enrolls, the freshman may have someone to whom he may go for consultation and assistance, each student selects a tentative educational objective and is assigned a faculty adviser within that academic area.

In the second semester of the freshman year, each student is given an opportunity to change to a new department or to remain in his current department. In succeeding semesters, students may change to another major department by execution of a Major Change Card (available in the Registrar's Office). It is the function of this adviser to help the student in adjusting himself to the work and life of the University. Academic progress reports issued by the Registrar's Office are sent to the advisers periodically, and the students are expected to report to their advisers from time to time to discuss their academic standing. The University also forwards reports of academic standing to the parents. Both students and parents are encouraged to consult with the adviser whenever there are problems regarding studies or personal adjustments to college life.

PROGRAMS FOR SUPERIOR STUDENTS

The University regularly provides superior students with challenging educational programs extending from the freshman through the senior year. Under the Early Admission Plan, the University considers applications from students of high standing who have completed their junior year of secondary school.

Many entering students are able to achieve advanced standing and credit for college-level courses successfully completed in their secondary schools as part of the College Entrance Examination Board Advanced Placement Program or an equivalent. The University also administers a number of its own advanced placement tests. A student who demonstrates he is proficient in a basic college subject may by-pass the beginning course and go on to advanced work in the subject. Upon attaining satisfactory standing in many of these courses, students are granted academic credit for the courses by-passed. Also, up to thirty semes-

ter hours of credit may be granted students of high standing who can fulfill the requirements of some of their courses through independent study.

The major feature of the program for superior students is the honors curriculum available to all who qualify. Freshmen are eligible for the Honors Colloquium program conducted for the first three undergraduate classes.

The Senior Honors Program recognizes merit and gives highly qualified students time and opportunity for independent study under closer, more personal direction than is ordinarily provided in the University curriculum. Students who complete their work satisfactorily are eligible for graduation with honors.

STUDENT HOUSING

It is the policy of the Board of Trustees that all men and women undergraduate students shall be housed in campus residence halls and be required to eat at University dining halls unless given permission to commute from their parents' home or to live at sorority or fraternity houses. Sororities and fraternities may furnish regular board to members up to the approved capacity for each house.

As architect envisions new Southwest Dormitory Complex.

Most residence hall rooms are double and all are furnished with beds, mattresses, desks, chairs, mirrors, and a chest of drawers. In addition to this, many have desk lamps, waste baskets and draperies. Students care for their own rooms and are responsible for any damage. Residence halls open for occupancy on the day immediately preceding the opening of the University. All student property must be removed from the rooms and the key returned immediately after final examinations in June. Such property not removed by the owner will be removed by the University and stored at the owner's expense. Students assigned to residence hall rooms will be responsible for the room rent of the entire semester. Room rent is not refundable. Room rental charges do not include the several regular school vacation periods. The University reserves the right to change room assignments whenever necessary. The University, also, reserves the right to utilize student rooms during vacations for conferences and other groups which meet occasionally on campus.

UNIVERSITY-OWNED APARTMENTS

The University owns and operates two groups of apartments: The University Apartments for new and junior faculty, and the Lincoln Apartments for junior faculty, married graduate and undergraduate students. Apartments are unfurnished with the exception of kitchen units which contain an electric range and refrigerator. Apartments are assigned as of the date of availability. New junior faculty, married graduate students and undergraduate students with children receive consideration in that order. Further housing information and/or applications may be obtained from the University Housing Office in Draper Hall.

MOTOR VEHICLE REGULATIONS

Driving to and from classes is not permitted, and only students in the following categories will normally be authorized to possess and operate a motor vehicle in the Amherst area:

a. Commuting students who live over one mile from the center of campus during the academic year.
b. Students whose locomotive capability is so seriously impaired that they would be prevented from meeting regular class appointments without motor vehicle assistance.
c. Married students residing with spouse.
d. Students over 25 years of age.
e. Members of the senior class.
f. At the discretion of the Dean of Men or Dean of Women, students presenting extenuating circumstances in writing may be authorized to possess motor vehicles.

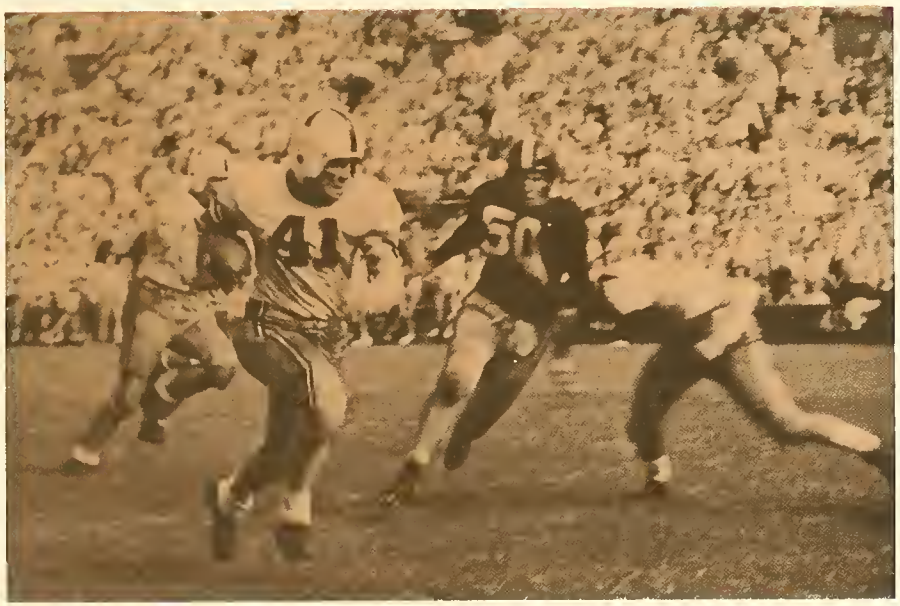
All motor vehicles must be registered with the University Police. In advance of arrival on campus, eligible students should obtain from the University Police Department a copy of the University regulations pertaining to possession, registration and operation of motor vehicles.

STUDENT ORGANIZATIONS

Participation in extra-curricular activities offers opportunities for furthering the broader objectives of a college experience. The knowledge, skills and judgment developed in the classroom can be tested and refined through use in the organizational setting. Thus, more than fifty professional clubs exist on campus as a means of stimulating vocational interest through close contact with members of the teaching staff and representatives of the professions. Student government offers a forum for debate on matters of importance to the entire University community. For those interested in communications, there are several campus publications as well as an FM radio station. Experience in music and drama is available in a number of forms.

Such activities can be a profitable means of fostering maturity and general enrichment in those students who wish to take optimum advantage of all that the University can offer. In encouraging participation in these activities, the University asks only that students plan their time well, in order that they may profit as much as possible from a total University program devoted, first and foremost, to academic studies.

All extra-curricular activities are supervised by the Committee on Recognized Student Organizations composed of alumni, faculty, and students. Recognition for outstanding achievement in this area is given at an annual Student Leaders Night held in the spring. An office devoted to administering and assisting in the conduct of student activities is located in the Student Union. Detailed information about student organizations may be obtained by contacting the Recognized Student Organizations Adviser.



UMass Redmen in action.

PLACEMENT SERVICES

The University maintains an Office of Placement and Financial Aid Services whose responsibilities include vocational and financial counseling and the administration of the affairs involved in aiding students to seek appropriate positions and careers; the granting of loans and scholarships; the assignment of part-time work; the coordination of veterans' affairs; and the dissemination of information relative to military service through the draft or reserves. While providing vocational and career counseling for all undergraduates, the emphasis is on aid to seniors in planning their future following graduation and providing them with job-hunting techniques and other media for finding permanent employment. Actual contact with employers is provided during the year when employers from business, industry, schools, and other sources visit the campus to interview prospective graduates.

Cumulative student personnel records; occupational information and industrial literature libraries; preparation of credentials including personal resumes and recommendations coupled with counseling and guidance are provided to enable senior men and women to accomplish their career objectives consistent with their interests, abilities, aptitudes and education.

THE PROGRAM AND ITS OPPORTUNITIES

The University offers four-year undergraduate curricula leading to the following degrees: Bachelor of Science, Bachelor of Arts, Bachelor of Science in Chemical, Civil, Electrical, Industrial and Mechanical Engineering, and Bachelor of Business Administration. Work toward these degrees is carried on in the College of Agriculture, the College of Arts and Sciences, the Schools of Business Administration, Education, Engineering, Home Economics, Nursing, and Physical Education, and the Department of Public Health. Special arrangements are made for some graduates of county agricultural schools and of agricultural departments of certain high schools to complete the college course with majors in agriculture and horticulture. Upon completion of their course, these students are granted the degree of Bachelor of Vocational Agriculture.

The aim of the four-year course is to give the student as high a degree of proficiency in a particular branch of learning as is possible without sacrificing the breadth, knowledge and general training which should characterize a well-rounded college education. Under this philosophy, the University has made recognized contributions, through its graduates, to the life and culture of America. University alumni hold positions in government, education, business, science and engineering, the arts, medicine, law, and many other professions. With rising enrollments, the University is educating ever greater numbers of young men and women for significant careers and important contributions to American society.

The following pages are designed to give some indication of the variety of such opportunities open to students who are accepted for admission. Descriptions of curricula are given in brief and general terms so that prospective applicants may become quickly acquainted with the entire range of offerings. Graduation requirements for each curriculum have been omitted, principally because a student admitted to the University will have ample opportunity to acquaint himself with such requirements after he has arrived on campus. Courses required in the freshman year, on the other hand, are included in the section beginning on Page 30. Further information on various phases of the major courses of study may be obtained from the Deans of the Colleges and Schools or from the Registrar. Information about other aspects of the University program may be obtained from the appropriate offices listed on Page 32.

COLLEGE OF AGRICULTURE

Arless A. Spielman, *Dean* — Stockbridge Hall

The College of Agriculture offers a broad general education with specific training in a specialized area. Upon the completion of the requirements for the Bachelor of Science degree, the student will have devoted about one-quarter of his time to pure science, one-quarter to social and humanistic studies, and about one-half to applied science and technology. A broad choice of electives within the required courses of each curriculum gives the student the opportunity to prepare for a career in research, industry, business, education, conservation, services. Each department of the College has specific requirements for graduation which are included in the General Catalog under the name of the department. During the first semester of the freshman year, students interested in teaching vocational agriculture, extension work, or specializing in research work, should consult with the head of the department in which they plan to major.

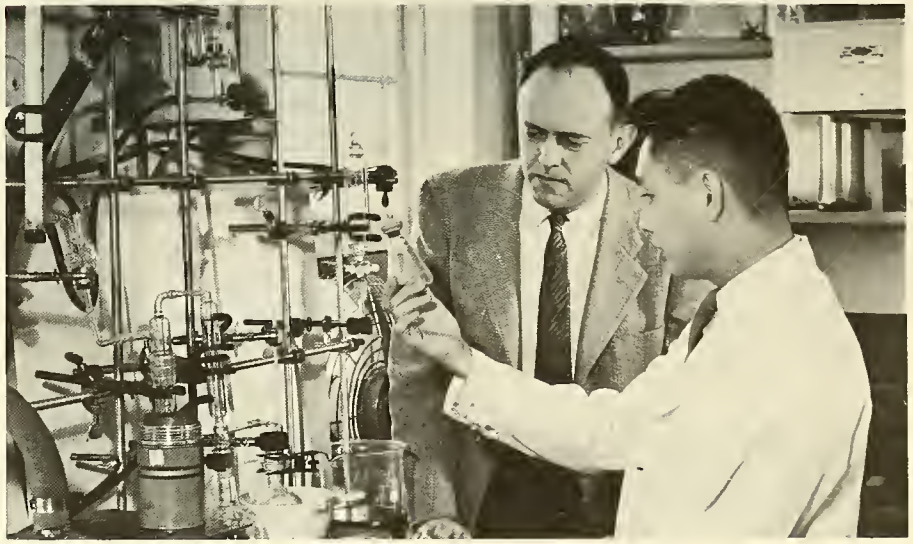
For those students interested in a two-year program in food and agricultural industries, the University provides offerings in the Stockbridge School. A separate bulletin describes these offerings in detail.

The four-year courses of study available in the College of Agriculture include the following:

AGRICULTURAL AND FOOD ECONOMICS. This curriculum is designed (1) to prepare students for employment in executive positions with firms related to agriculture or for administrative positions with governmental agencies concerned with agriculture and (2) to give the essential undergraduate preparation for a career in agricultural economics, in research, teaching, or extension work. The course of study, which leads to the degree of Bachelor of Science, combines training in technical agricultural sciences with courses in business management and economics.

AGRICULTURAL ENGINEERING. Agricultural engineering is concerned with the application of scientific engineering principles to agricultural industries. This professional field includes engineering activities related to the design, development and use of mechanical and electrical equipment; structures; and soil and water control systems for the production, processing and preservation of agricultural products and the improvement of rural living. Agricultural engineers are employed by a variety of agricultural industries and organizations for research, development, teaching, and promotional activities.

ANIMAL SCIENCES. The curriculum in the animal sciences, including poultry, is designed to provide fundamental training and knowledge in the comparative nutrition, physiology, breeding, selection and management of various classes of livestock and to understand the role of animal production in the national and world economy. The curriculum provides for an important degree of flexibility depending upon the students' interest and abilities. Options emphasizing commercial animal production are supported by electives in agricultural economics, agricultural engineering, and business administration. Students interested in graduate work in such specialized areas of the animal sciences as nutrition, physiology or genetics should elect programs with special emphasis on the basic sciences.



Research in Animal Science.

ENTOMOLOGY. Courses in entomology acquaint students with all phases of insects and insect control, including agriculture and medical entomology. Trained entomologists find positions in public service and industry, such as teaching at all levels; research, quarantine and regulatory work in State or Federal Service, various roles in public health and pest control activities; research, sales and public relations work in the agricultural chemicals industry; and agriculture.

FOOD SCIENCE AND TECHNOLOGY. The curriculum in Food Science and Technology provides scientific and technological training in the principles concerned with the processing, preservation, and packaging of foods and food products. The student's training is directed to the application of modern science and technology to research and to the manufacturing and distribution of foods. Major fields open to graduates include: (1) product research and development; (2) food processing and packaging; (3) technological work and research in government, industry, and education; (4) advanced graduate study.

FORESTRY AND WOOD TECHNOLOGY. The curriculum in Forestry concerns the biology and management of forests for the production of wood, water, wildlife, and opportunities for outdoor recreation. Integrated, multiple-purpose forest use is emphasized. The accredited program prepares graduates for employment with private industry, federal and state agencies, conservation and planning organizations. The program in Wood Technology emphasizes studies in the nature and properties of wood, the engineering and chemical technology

Laboratory in foods research.

Wildlife and fisheries biology.

of its manufacture into a variety of useful products, and the business aspects of industrial management and marketing. Graduates find employment in wood-processing firms and service-related industries, and in marketing and merchandising.

LANDSCAPE ARCHITECTURE. Students following this curriculum, which requires 125 credits for graduation, are prepared through a broad academic approach to take up work in the various phases of landscape architecture. This applied design profession is concerned with the development of land for human use and enjoyment. In addition to the usual areas of interest, such as site planning for private, semi-public and public works of many types, considerable city and regional planning is now available for those interested.

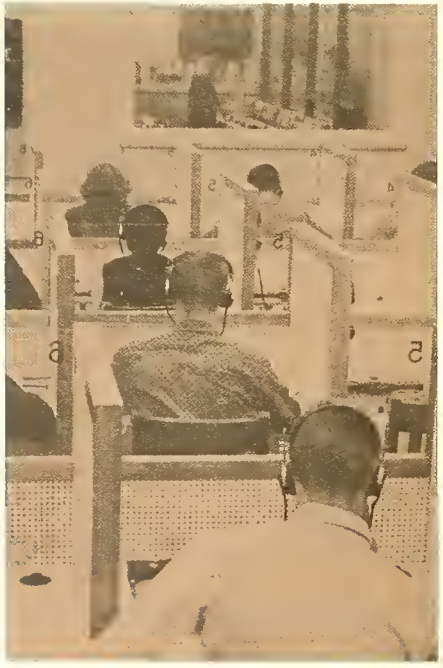
PARK ADMINISTRATION. This new curriculum provides a diversified program for those planning a career in park development, operation and administration. The basic background of landscape design supplemented by a wide selection from the biological and social sciences permits preparation for positions in Federal, State, local governments, and various related commercial enterprises.

PLANT AND SOIL SCIENCES. A major in plant and soil sciences permits specialization in agronomy, turf management, many areas of horticulture, soil science and plant pathology. Emphasis is on courses in the basic sciences and those dealing with the principles of plant growth and response to the environment, thereby preparing students for a variety of careers in teaching, research, industry, business, marketing, production, sales, control and regulatory services with state and federal agencies. A major in plant and soil sciences will be required to take a basic group of subjects in the physical, biological and social sciences as well as the humanities.

PRE-VETERINARY. Students may enroll in either the College of Agriculture or in the College of Arts and Sciences. However, since there is no pre-veterinary major, students will also choose a department for their area of concentration. At the summer counseling sessions, students will have an opportunity to meet and discuss their program with the pre-vet advisor, but the formal pre-registration will be handled by a member of his preselected major department. Students who, by their work in the first year, demonstrate a potential ability for success may, in their third semester, apply to the premedical advisory committee for entrance into the pre-vet program. Others may complete the work for a B.S. degree in the chosen major and then apply to Veterinary Schools.

RESTAURANT AND HOTEL MANAGEMENT. The curriculum in Restaurant and Hotel Management is offered by the Department of Food Science and Technology. The program provides technical and professional courses for persons who plan a career in ownership, management, or sales in the hotel-motel, food service or related fields. Professional courses are balanced with a selection of courses in the arts and sciences which serve to broaden the students' interests and appreciations.

WILDLIFE AND FISHERIES BIOLOGY. Wildlife and Fisheries Biology is concerned with the acquiring and application of knowledge concerning terrestrial and aquatic animal populations which are of recreational or commercial value. This knowledge includes the dynamics of animal population and their responses to changes in environmental conditions, including changes incurred by land use and direct exploitation by man. A broad understanding of geology, forestry, soils, agriculture, botany, and zoology is required.



COLLEGE OF ARTS AND SCIENCES

I. Moyer Hunsberger, *Dean* — Bartlett Hall

The College of Arts and Sciences offers instruction in the fine arts, the humanities, the social sciences, the natural sciences, and mathematics, both for students enrolled in the College and for those in other undergraduate divisions of the University. The program provides for the breadth of intellectual development essential to a liberal education and for concentration, which is the necessary foundation for competence in a selected discipline.

The Bachelor of Arts degree may be earned by students majoring in any division of the College. The Bachelor of Science degree may be earned by students in the natural sciences, mathematics, or psychology.

The following major courses of study are available in the College:

ART. The Department of Art is interested in providing two kinds of training: The first gives each student a good general historical and aesthetic knowledge of the arts; the second gives each student an opportunity to develop his creative ability in the several media of the arts.

ASTRONOMY. A Department of Astronomy conducted jointly with Amherst, Mount Holyoke, and Smith Colleges provides instruction in this field. All advanced courses are given on a joint basis for students from the four participating institutions.

BOTANY. Programs in botany prepare students for teaching and research in biological sciences in high schools, universities, industry, and experimental stations.

CHEMISTRY. The prime purpose of the Department of Chemistry is to offer sound preparation for graduate study in chemistry. Accordingly, emphasis is placed upon intellectual accomplishment and broad understanding rather than on terminal training for specific chemical tasks. The program designed for this purpose also affords sound preparation for direct entry into chemical industry, chemical institutes, or governmental laboratories.

ECONOMICS. In economics the aims are twofold: (1) to give the student an understanding of economic theory and of the application of economic principles to the organization of society; (2) to provide students with the elementary training necessary for further study and solution of economic and business problems.

ENGLISH. The major in English affords the student opportunities to improve his knowledge of the English language and his ability to use it clearly, logically, and artistically; to increase his knowledge of Western literature written in English or translated with distinction into English; to read and discuss a literary work

Top left — Bartlett Hall. Top right — Creative design class. Lower left — Foreign language study. Lower right — Symphony band in concert.

with perception and understanding, and to form an independent estimate of it by valid critical standards.

GEOLOGY. For students considering geology as a career, the opportunities are many. Those interested primarily in basic science may look to positions in teaching, in museum work, on state and federal surveys, and in various research organizations. Those concerned mainly with applied science may direct their efforts toward work in mining geology, petroleum geology, engineering geology, and ground-water geology, and industrial mineralogy.

GERMAN. The courses in German are intended to give a practical knowledge of the language for the purpose of wider reading, research, and oral communication.

GOVERNMENT. The courses offered by the Department of Government are designed to aid the student in gaining a knowledge of the nature, functions, and problems of government, and of the place of government in the modern world. Political theory, constitutional law, international relations, comparative government, politics and public administration are the principal areas covered.

HISTORY. Courses in history are designed to provide an understanding of man through a study of patterns of development in the past. The study should also give the student an introduction to major problems in world affairs.

JOURNALISM. The journalism program is concerned with: (1) the study of writing and of communication problems relevant to the media of mass communication, and (2) the best utilization of the University's liberal education resources by students who plan careers in newspaper work, communications research, public relations, magazine and radio journalism, or some other field of communications.

MATHEMATICS. The department offers courses designed to furnish a cultural background as well as a foundation for both undergraduate and graduate work in mathematics, statistics, physics, chemistry, engineering, econometrics, and biometrics.

MICROBIOLOGY. The courses in microbiology are designed to aid the student in acquiring special knowledge of the nature and function of the micro-organisms and to provide an appreciation of the role of experimental biological science in widening man's horizons.

MUSIC. The undergraduate major program in music is pre-professional, so that courses, music organizations, and private study are the means used to prepare each student. Other undergraduates may minor in music, or follow a sequence of courses for continuing study.

PHILOSOPHY. Philosophy seeks a comprehensive understanding of the various areas of man's experience in their interrelatedness. In the context of the historically important theories, the courses concentrate on methods of inquiry into the persisting questions of philosophy, standards of thought, clarification of ethical and aesthetic values, and the basis of criticism.

PHYSICS. Courses are designed to accommodate students who desire specialized training in physics, and also to provide required or elected courses for students majoring in engineering, mathematics, chemistry, or other fields.

PRE-MEDICAL AND PRE-DENTAL CURRICULUM. Pre-medical and pre-dental students are assigned to faculty advisers for their freshman year. At the end of their second semester, they will be assigned to a member of the Upperclass Committee who will be their adviser for the remainder of the course of study. Pre-veterinary students may register in the College of Agriculture or the College of Arts and Sciences.

PSYCHOLOGY. The courses in the Psychology Department are planned: (1) to impart an understanding of the basic principles, methods and data of psychology as a science, and the application of this knowledge to problems of human adjustment; (2) to prepare some majors for graduate study which may lead to a professional career in psychology; and (3) to help prepare others for non-professional careers. In carrying out these aims, majors are urged to elect, with the help of a departmental adviser, a broad program of courses.

ROMANCE LANGUAGES. Three majors are offered: French, Spanish, and Classics — the latter through cooperation with Amherst, Smith, and Mount Holyoke Colleges. The courses of these curricula are intended to give: (1) a thorough training in the language skills, (2) an appreciation of the aesthetic and intellectual qualities of the literatures, and (3) a serious insight into the cultures of the nations concerned. Language and literature courses in Portuguese and Italian also are available.

RUSSIAN. Students choosing Russian as their field of major concentration will receive training in reading, writing, speaking and understanding the language, and a knowledge of Russian literature. Russian majors will also acquire the background in Russian history, government and economy necessary for an understanding of the literature and culture of the Russian people.

SOCIOLOGY AND ANTHROPOLOGY. Students may major either in sociology or anthropology. Courses are planned with two aims in view: to give the student an understanding of the factors which influence men in their activities and interests as members of society, and to help prepare students for a wide variety of occupational outlets, including social work.

SPEECH. The courses offered in the department of speech are concerned with the theory and practice of spoken communication in its various applications. An undergraduate major in speech may choose one of five areas of communication: (1) Rhetoric and Public Address, (2) Interpretation and Theatre, (3) Radio and Television, (4) Speech Education, (5) Speech and Hearing Therapy.

STATISTICS. Although there is no undergraduate major in statistics, the courses are designed for those who are preparing for graduate work in statistics or for those who require statistics as a basic preparation for their own subject-matter discipline.

ZOOLOGY. The courses in zoology have two major aims: (1) to offer students an opportunity to develop an understanding and appreciation of the scientific method as a part of a liberal education; and (2) to provide training for prospective graduate students in biology, medicine, dentistry, and related fields, as well as future teachers and laboratory technicians in the biological sciences.

School of Business Administration building.

Lecture hall in the School of Business Administration.

SCHOOL OF BUSINESS ADMINISTRATION

H. B. Kirshen, *Dean* — School of Business Administration Building

The School of Business Administration prepares students to take advantage of important economic opportunities and eventually to assume positions of responsibility in business. The educational program is directed toward the broad aspects of business, encouraging high standards of ethical conduct, broad social responsibilities and the development of competence in courses of study of the student's interest, aptitude and choice.

The first two years emphasize general education by providing fundamental courses in the humanities, mathematics, science and social science. In addition, basic courses in accounting and economics prepare the student for further work in the School of Business Administration. The junior and senior years emphasize a greater degree of specialization. But even in these last two years all students need to view business as a whole in so far as a "core" of courses can do this. This "core" is required of all students. A total of at least 120 credit hours is required (122 in Accounting) for graduation exclusive of credit received in the required physical education courses. Each course of study leads to the degree of Bachelor of Business Administration.

All students in the School of Business Administration must attain, as a graduation requirement, a 2.0 average in Accounting 125 and 126, Elementary Economic Statistics 121, and the junior "core" courses: Finance 210, Financial Institutions; Finance 201, Corporation Finance; General Business 260, Business Law I; Management 201, Principles of Management; and Marketing 253, Principles of Marketing. The "core" must be completed by the end of the junior year unless a student, on recommendation of his department chairman, has received permission from the Dean to postpone any such course to the senior year.

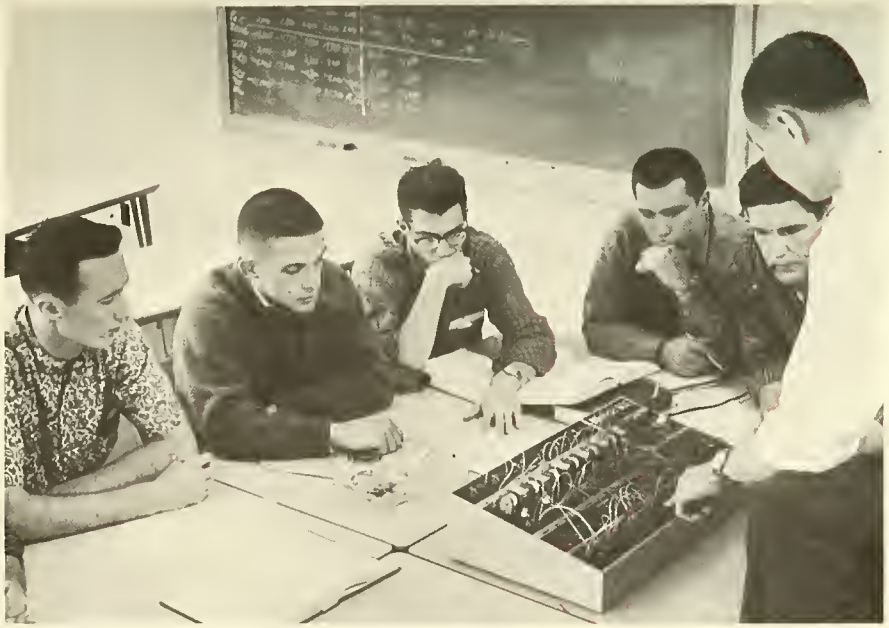
Students transferring from any School or College within the University shall receive junior and senior elective credit only for those courses passed with a grade of C or better.

Students transferring from outside the University as juniors or seniors must complete a minimum of 12 credit hours in courses offered by his major Department.

Students transferring from junior or community colleges should complete two years of a program in the Liberal Arts including only the one year course in Accounting and in Economics. Students from junior or community colleges who wish credit for completed courses that are offered here on the junior or senior level must pass an examination in each such course conducted by the department concerned.

The School of Business Administration is a member of the American Association of Collegiate Schools of Business.

Major courses of study are available in the School of Business Administration as follows:



A class in computer techniques for business analyses.

ACCOUNTING. The accounting program is designed to prepare students for public accounting and for positions as accountants in business, industry and government.

GENERAL BUSINESS AND FINANCE. The department has four major programs: *Finance, Business Administration and Economics, General Business* and *Urban* and *Regional Studies*. The curriculum in Finance is directed towards the fields of banking, investment, brokerage, insurance or governmental agencies concerned with finance. The curriculum in Business Administration and Economics comprehends a wider field to balance a knowledge of both economics and business. The curriculum in General Business was designed for students who do not wish to specialize in any particular field. The curriculum in Urban and Regional Studies is an interdisciplinary program directed toward the problems of metropolitan areas.

MANAGEMENT. Industry and business offer qualified students an opportunity to find careers in General Management, Production Management, and in Personnel Management and Industrial Relations. Course programs are offered in each of these fields and provide the student both a specialized and a comprehensive understanding of the managerial process in industrial enterprises.

MARKETING. Students in marketing prepare for a variety of positions in wholesale and retail enterprises and in the sales activities of manufacturers. The program includes specialized study of basic types of market operations such as advertising, sales management and retailing.

View of the Ralph C. Mahar Auditorium.

Students learn to use complex office machines.

Class in audio-visual methods.

Observation classroom in the Mark's Meadow Laboratory School.

SCHOOL OF EDUCATION

Albert W. Purvis, *Dean* — School of Education Building

The School of Education through its undergraduate program seeks to utilize the forces of the University to prepare teachers for elementary and secondary schools and through its graduate offering to prepare administrators and specialists in public education. Its program is based upon the assumption that teachers and other school personnel should have a broad liberal education, considerable mastery of at least one field, and professional courses which should lead to a knowledge of the persons to be taught, familiarity with the problems to be met, and practice in the best techniques of teaching and supervision. In all of this the School of Education takes the position that teacher education is a University function and that success will come only if the School is successful in maintaining the closest possible relationships with other schools and departments that contribute to the program.

All students who contemplate teaching as a career should register early, in their freshman year if possible, with the School of Education although their courses in education do not begin until the junior year. In general, students are admitted without question to the various service courses of the junior and senior years, but admission to the teacher-training program of the concentrated semester block is determined by a composite rating based on scholarship as shown by University grades (a three-year average at least as high as the University median is desired), success in the beginning courses in education, recommendations of University teachers in general education fields, and personality ratings by members of the staff.

ELEMENTARY SCHOOL TEACHING. Candidates for this program major in elementary education. In certain cases, with the approval of the Dean of the School of Education, the student may be permitted to major in some department of the College of Arts and Sciences where the general education program is deemed the equivalent of that designed for elementary education majors. This permission should be requested in freshman year. Such students will satisfy the requirements of their major department so far as the first two years are concerned but they should utilize their electives to take such courses as Government 100, Zoology 200, History 150, 151 and Art or Music which are

Learning experience for students majoring in elementary education.

Artistic expression is encouraged at Mark's Meadow.

recommended by the School of Education. They should take Education 009, 039, 059. The core program for elementary education majors including Education 251 and 264, and Psychology 261 or Home Economics 270, Music 231 and the Elementary Education Block should be taken in the junior and senior years.

SECONDARY SCHOOL TEACHING. All candidates for secondary school teaching will major in the subject field to be taught and minor in education. A maximum of eighteen hours should be taken in this minor. Education 251 and Psychology 301 are required during junior year and Education 310, 311, 385 (called the secondary block) in one semester of senior year. Since the concentrated semester block in secondary school teacher-training carries only twelve credits for some majors, students should consult with their major adviser regarding means of making up the extra three credits, and of meeting all their major requirements in the three semesters of junior and senior years.

SPECIAL FIELD PROGRAMS FOR PROSPECTIVE TEACHERS. In Vocational Agriculture. This program is based on a cooperative agreement between the University and the Vocational Division of the State Department of Education which provides supervisors and consultants in conducting the program. Students otherwise qualified may prepare to teach vocational agriculture by the satisfactory completion of Education 372, 373, and 375. Education 310 is also recommended. To insure a desirable range of preparation, students who contemplate vocational teaching should consult the Dean early in the freshman year if possible.

A vocational teacher-training certificate is awarded by the Vocational Division to those who fully qualify.

In Home Economics (Mrs. Marjorie Sullivan, adviser). These students will major in home economics and minor in education. They should elect Education 251, Psychology 301, Home Economics 381 and the concentrated semester block (Education 311, 385).

In Teacher Coaching (S. W. Kauffman, adviser). These students will major in physical education and minor in education. They should elect Psychology 261 and the concentrated semester block (Education 310, 311, 385). They should elect a minor teaching field from the College of Arts and Sciences consisting of a minimum of eighteen hours.

In Music. These students will major in music and minor in education. They should elect Education 251, Psychology 261, Music 321, and the concentrated semester block (Education 311, 385).

SCHOOL OF ENGINEERING

E. E. Lindsey, *Acting Dean* — Main Engineering Building

The departments of Chemical Engineering, Civil Engineering, Mechanical Engineering and Electrical Engineering comprise the School of Engineering. Each department offers a curriculum leading to a Bachelor of Science degree in that particular branch. A curriculum in Industrial Engineering is offered in the Mechanical Engineering department. All curricula are accredited by the Engineers Council for Professional Development.

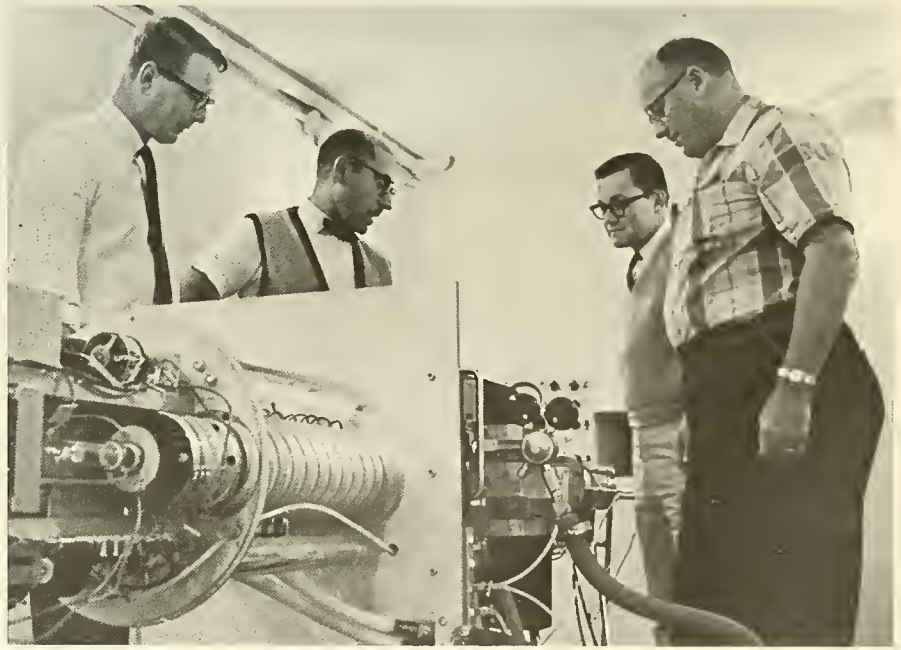
Engineering can be defined as the combination of science and art by which materials and power are made useful to mankind. An engineer requires intensive technical training but at the same time he should acquire the broad education that distinguishes the professional man from the technician. His education does not end with formal schooling but continues throughout his life as he accumulates experience.

The curricula in engineering have been carefully prepared to offer each student the opportunity to acquire the sound training in mathematics and the basic sciences of chemistry and physics upon which is built the work in the engineering sciences. In the senior year courses are offered which enable the student to use his previous training for engineering analysis, design and engineering systems in his particular field of interest. About twenty per cent of his time is devoted to studies in the social science and humanistic area. Some opportunity is provided to elect courses from both the technical and humanistic-social fields.

The curriculum of the freshman year is the same for all. Specialization to a limited extent begins in the sophomore year.

CHEMICAL ENGINEERING. Chemical Engineering is concerned with the development of manufacturing processes in which chemical or certain physical changes of materials are involved. These are resolved into a coordinated series of unit operations (physical changes) and unit processes (chemical changes). The work of the chemical engineer is primarily concerned with the design, construction, and operation of equipment and plants in which these are applied. Chemistry, physics, and mathematics are the underlying sciences of chemical engineering, and economics is its guide in practice.

Chemical engineers are employed not only in industry manufacturing chemicals but in many others, such as petroleum refining, coal processing, refractories and clay products, cement, waste treatment, pulp and paper, rayon and textiles, paint and varnish, natural and synthetic rubber, foods, leather, plastics, soap, penicillin and other antibiotics. Much of the work of the atomic energy program is chemical enigneering. The types of work done by chemical engineers include: design, construction, research, development, production, financial and patent appraisal, management, and sales.



Pulsed Neutron Generator.

CIVIL ENGINEERING. Civil engineering is concerned with structures, transportation, movement of fluids, use and storage of water, sanitation, and surveying and mapping. A civil engineer may be engaged in research, in planning and designing, in construction, or in maintenance and operation.

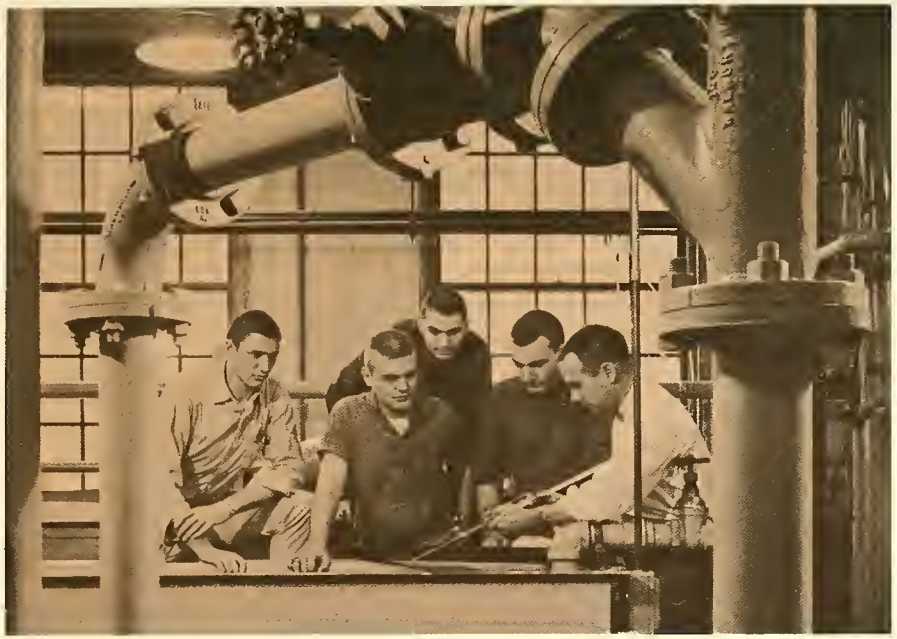
The curriculum gives a thorough training in the fundamental physical sciences and at the same time prepares a student for work in any branch of civil engineering, allowing him to specialize to some extent in whatever branch is most interesting to him — sanitation, mechanics and structures, hydraulics, foundation engineering, highway engineering.

ELECTRICAL ENGINEERING. Electrical engineering deals with the engineering applications of electricity. Because of its unusual amount of diversity, it is usually convenient to separate it into such main divisions as power, communications, electronics and control, and others.

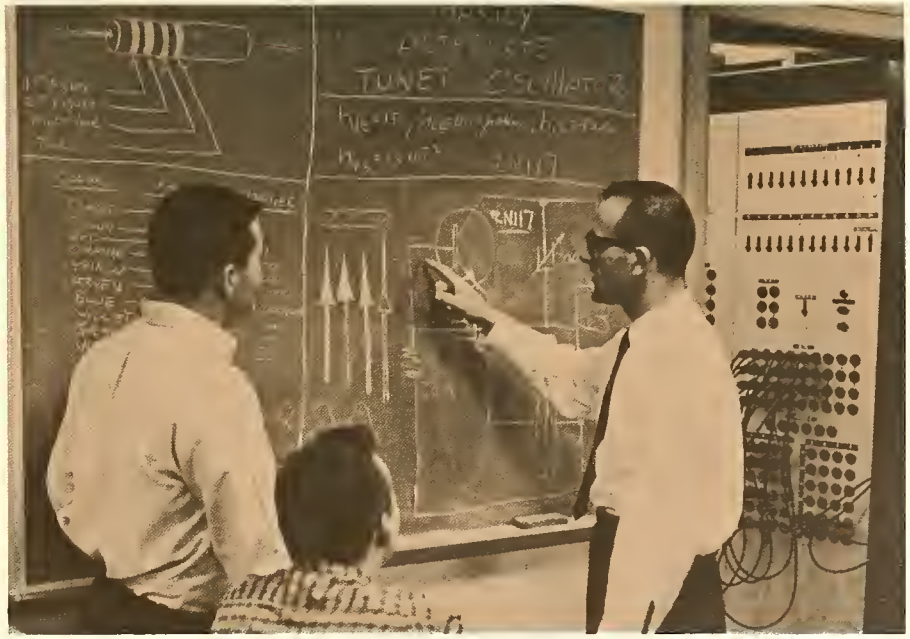
The undergraduate curriculum is designed to prepare the student for work in any of these fields and to serve as a basis for further specialization. Courses in liberal arts and in engineering courses outside of the department give the student an understanding of the broader aspects of engineering and other fields.

MECHANICAL ENGINEERING. Mechanical engineering is that branch of the profession which, broadly speaking, covers the fields of heat, power, design of machinery, industrial management and manufacturing problems.

Building upon a foundation of mathematics, physics, and chemistry, the department of mechanical engineering undertakes to show the student how funda-

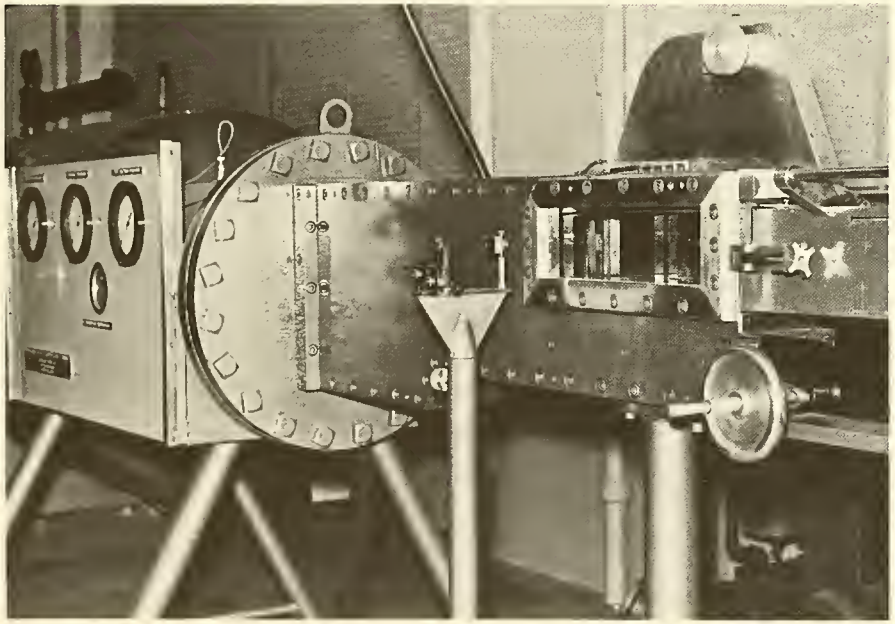


Fluid mechanics laboratory.



A demonstration in electrical engineering.

Test section of Mach 4 wind tunnel.



mental physical laws apply to this field and to give him thorough training in the basic principles so that particular application can be mastered in professional practice. Therefore, no attempt is made to give highly specialized instruction.

INDUSTRIAL ENGINEERING. Industrial engineering is concerned with the engineering aspects of the organization, operation and management of manufacturing plants. Consequently, the industrial engineering curriculum is built on a foundation of mechanical engineering. To the technical knowledge and scientific attitude developed through the study of engineering is added the study of certain courses in the humanities, in economics, and in management.

ENGINEERING SCIENCE OPTION. Engineering science is concerned with the application of the basic sciences to research and development in the engineering field. As such the curriculum contains extensive mathematics, physics, and other courses in the basic sciences designed to develop the student's skill in precise physical reasoning, analysis and synthesis. The student may elect the option from one of the four major departments at the end of his sophomore year provided he has completed his freshman and sophomore years with a quality point average of 2.80 or above or has achieved a cumulative average of 3.20 for the two preceding semesters.

The freshman year is the same for all students and the sophomore year corresponds to that major department in which the student is enrolled.

Skinner Hall: the School of Home Economics.

Projects in fashion merchandising prepare students for careers in business.

SCHOOL OF HOME ECONOMICS

Marion A. Niederpruem, *Dean* — Skinner Hall

Home Economics encompasses areas of study which apply the principles and concepts of fundamental arts and sciences to the physiological, psychological, social and economic environmental needs of man.
The School of Home Economics has five subject matter areas (departments), namely: Food and Nutrition (FN); Textiles, Clothing and Environmental Arts (TCEA); Management and Family Economics (MFE); Human Development (HD); and Home Economics Education (HEEd.). The letters in parenthesis are area codes. Within these five areas the following undergraduate majors are offered:

DIETETICS AND INSTITUTIONAL ADMINISTRATION

FOODS IN BUSINESS

FASHION MERCHANDISING

HOME MANAGEMENT (Sept. 1966)

CHILD DEVELOPMENT

SECONDARY EDUCATION AND EXTENSION

The undergraduate program of the School, leading to a Bachelor of Science degree, emphasizes a liberal education in the sciences, arts and humanities with specialized instruction as preparation for professional careers. The transitional continuing relationships between liberal and professional education seek to develop in the student a disciplined mind, mental curiosity and professional competence.

Professional home economists are college and university graduates with bachelor degrees in Home Economics. They serve individuals, families, and communities through schools and colleges, extension programs, business organizations of many kinds all over the world, community and government organizations and agencies, newspapers, magazines, radio and television. Representative types of activities that Home Economists participate in include teaching, research, writing, dietetics, extension work, interior decoration, fashion merchandising, food consulting, food service management and product development. Experience and advanced study in areas of specialization lead to positions of great responsibility.

Food and Nutrition

Food and Nutrition curricula provide courses in Food and Nutrition combined with a strong foundation in the Arts and Sciences with two majors: Dietetics and Institutional Administration; and Foods in Business.

DIETETICS AND INSTITUTIONAL ADMINISTRATION. This curriculum prepares the student for positions as therapeutic and administrative dietitians; teaching and research dietitians and nutritionists with public and private agencies. An

increasing number of new opportunities continually challenge graduates in this major.

The sequence offers opportunities for further work at the graduate level. This program is planned to meet the basic requirements of the American Dietetic Association for admission to approved dietetic internships.

FOODS IN BUSINESS. This curriculum is based on professional training in Food and Nutrition combined with other selected courses in Home Economics, the humanities, Western cultures, social sciences and business. The program is designed for the student who is oriented to the business world, and leads directly into development and promotion with food, equipment and utility industries. Positions are open in the field of communications for the student who combines her knowledge of Food, Nutrition and Equipment with Journalism, English, Speech, Television and Radio. Graduates with a major in this sequence are also placed in advertising and public relations agencies or with a consulting firm. This curriculum allows students to pursue graduate study.

Textiles, Clothing and Environmental Arts

FASHION MERCHANDISING. The retailing and professional opportunities associated with clothing, textiles, home furnishings and related merchandise are limitless. They include positions with manufacturers, producers, retailers, buying organizations, newspapers and magazines, radio and TV and consumer groups, as well as educational institutions and social and government agencies. The student who is interested in the business field pursues, by specializing in this area, a curriculum with a strong program of liberal arts emphasizing the social sciences. Courses which build on this foundation providing professional business competency include fundamentals of clothing, textiles, fashion and environmental arts as well as courses in business, retailing and related subjects. Those students who are particularly interested in Interior Design may follow a slightly different sequence of courses.

Management and Family Economics

The area of Management and Family Economics is concerned with achievement of goals and mediation of values within the family. Decision-making and organizing processes are studied as the means to these ends. The field is concerned with the family as an economic unit and social system. Sociology, Economics, Anthropology and Philosophy provide support for the field.

HOME MANAGEMENT. The undergraduate specialization in this area is planned for September 1966. The curriculum provides breadth in Home Economics and depth in the Social Sciences. It will prepare students for positions as home economists in private and governmental agencies concerned with family education and welfare here and abroad. It meets the requirements for Civil Service positions. In addition, the curriculum provides the foundation for graduate work.

Field experience with agencies serving families will be provided to aid the student in gaining competence in implementing programs related to family education and welfare.

Human Development

The area of Human Development is of necessity interdisciplinary in nature. The program brings together knowledge from Psychology, Sociology, Anatomy, Physiology, Nutrition, Education, the Arts, Anthropology, and relates it to Human Development and early childhood education. It is concerned with all maturational and environmental effects upon developing individuals, and with all theoretical and empirical descriptions of how this development occurs.

CHILD DEVELOPMENT. The child development program prepares the student for work in various types of group programs serving preschool-aged children, such as laboratory, public, and private nursery schools, clinics for exceptional children, hospital recreation programs, and community and welfare agencies. In addition, the child development curriculum provides a good background for graduate work in various other child serving professions.

Directed experience with the children of the laboratory nursery school and their families provides the necessary opportunity for students to develop a sound personal philosophy of early childhood education, and to achieve competence in implementing it. More intensive specialization for qualified students may be obtained by the election of a one-semester affiliation with: (1) Merrill-Palmer Institute in Detroit, Michigan, which specializes in the study of human development and family life; (2) the Eliot-Pearson School in Boston, Massachusetts, which specializes in the education of the three-to-six-year-old child.

Students learn to use television to extend food and nutritional information to consumers.

Learning experience for student majoring in nursery school education.

Home Economics Education

Home Economics Education offers a curriculum which provides a broad cultural education and preparation for teaching in secondary schools and the Cooperative Extension Service.

SECONDARY EDUCATION AND EXTENSION. The School of Home Economics, in cooperation with the School of Education, prepares students for teaching home economics in junior and senior high schools. This curriculum serves also as a base for graduate study in subject matter areas in home economics and home economics education. Students interested in the Cooperative Extension Service will, with the assistance of an extension adviser, select courses in preparation for continuing education positions in adult and 4-H programs.

Care of the elderly patient at home as part of community nursing experience.

Western Massachusetts Public Health Center, home of the School of Nursing.

SCHOOL OF NURSING

Mary A. Maher, *Dean* — Western Massachusetts Public Health Center

The basic nursing program is designed to prepare the qualified high school graduate for a career in professional nursing, as well as for the responsibilities of family and community life.

The program aims to equip the graduate with those understandings and skills which are needed to function effectively in beginning positions in a variety of nursing situations. These include the ability to provide competent nursing care to patients and families in the hospital, home and community; to participate with allied professional and citizen groups for the improvement of total health services to individuals and communities; to participate in organizing, planning and directing the work of nursing auxiliary workers. The baccalaureate program provides a foundation for advanced study, through which the nurse may become prepared for positions in teaching, supervision, administration, consultation and research.

During the first two years, the student builds an educational foundation upon which to base the more specialized portion of the program. Courses in the humanities and in the sciences — biological, physical and behavioral — are taken with other students on the campus.

The clinical aspects of the program are developed in the next two years, when instruction and correlated clinical nursing practice are given in selected co-operating agencies by the nursing faculty of the University and the allied professional staffs of the cooperating agencies. These agencies include: the Springfield, Wesson Memorial, and Wesson Maternity Hospitals in Springfield; the Northampton State Hospital; the Visiting Nurse Association of Springfield; the Springfield Health Department, and other community health, educational and welfare resources.

The Bachelor of Science degree, awarded upon successful completion of this program, qualifies the graduate for admission to the State Board Examinations in Nursing. If achievement in these examinations is satisfactory, the candidate receives legal status as a registered nurse within the state.

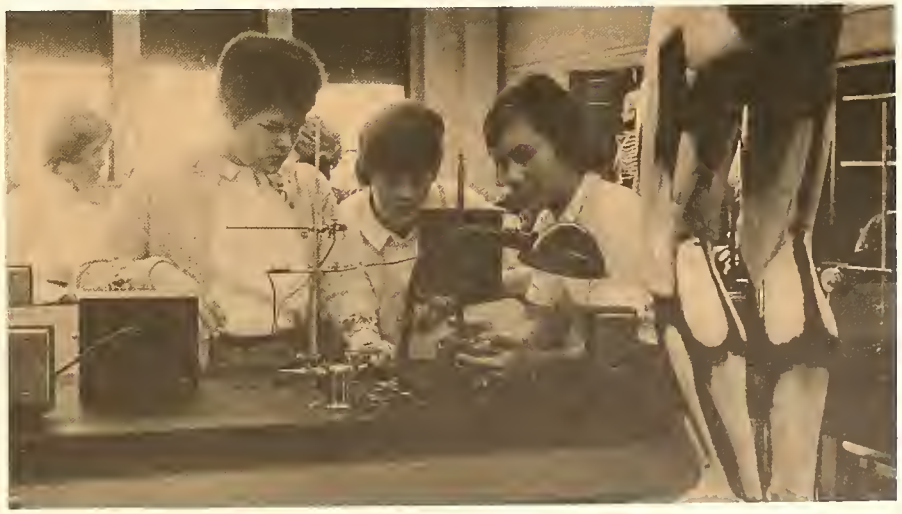
The program is accredited by the Massachusetts Board of Registration in Nursing and Accrediting Service of the National League for Nursing.

Essential foundation for Nursing: Anatomy Laboratory.

Mother-newborn infant relationships taught in the Mother-Baby unit of the maternity hospital.

Clinical experience with children in a hospital unit.

Essential foundation for Nursing: Physiology Laboratory.



SCHOOL OF PHYSICAL EDUCATION

Warren P. McGuirk, *Dean* — Frank L. Boyden Physical Education Building

The School of Physical Education includes the Departments of Physical Education for Men, Physical Education for Women, Recreation, and Athletics. It offers undergraduate majors in Physical Education and in Recreation and a graduate degree in Physical Education.

Physical Education for Men

GENERAL PROGRAM. Each male freshman and sophomore student, unless exempted under certain conditions, must successfully complete four semesters of physical education and demonstrate his ability to swim as a requirement for his degree. The physical education requirement does not apply to those students excused by the University physician, veterans of more than six months of military service, and certain transfer students.

Students may receive credit for physical education, during the sport in season by becoming squad members of any freshman or varsity team. Freshmen who elect an athletic team sport for physical education credit must rejoin their class sections at the termination of the seasonal sport. Students may not participate in a given sport for credit for more than two semesters.

MAJOR PROGRAM. The major program leading to the degree of Bachelor of Science in physical education is designed to train the student for a career as a teacher of physical education. The curriculum combines both general and professional education and provides for full teacher certification for the student who has met the prescribed requirements of preparation. The program also provides for adequate training in a minor area of teaching, elected by the student, including the coaching of inter-school athletics.

Physical Education for Women

GENERAL PROGRAM. Physical Education is required of all women students during their freshman and sophomore years. The courses are planned to provide recreative activity, to improve individual skills, to develop body grace and efficiency and to increase health and vigor.

The first and second year women students are required to take three class hours a week for a total of eight credits, one for each quarter of satisfactory work.

MAJOR PROGRAM. The major course in physical education is planned to prepare women students for professional careers. Special attention is given to preparing teachers for elementary and secondary schools in both physical and health education. Other areas for which the graduate will qualify are teaching sports and dance in social agencies, industrial plants, civic centers and camps. A foundation will be laid for specialization in graduate study.

The curriculum gives a broad general background as well as the professional preparation.

Recreation

MAJOR PROGRAM. The department seeks to prepare men and women for positions involving administrative, supervisory and program leadership responsibilities in municipal recreation agencies, voluntary and youth-serving agencies, hospitals, and industrial and institutional organizations.

The program is designed to provide opportunities for a general education, a knowledge and understanding of people and society, activity skills and resource knowledge, professional competency, and practical experience in various leadership situations.

In addition to completing the curriculum as described below, the student is required to:

(1) attend a professional conference approved by the department;

(2) participate in programming activities at the Student Union, with a scout troop, or in a similar setting approved by the department;

(3) devote one summer (minimum of six weeks) to a recreation position, preferably with pay, in a camp, playground, or similar setting approved by the department.

Intercollegiate and Intramural Athletics

The University supports the Department's belief that there are educational advantages in a well-organized intercollegiate and intramural sports program. In intercollegiate athletics, the University is represented by teams in all the leading sports, including football, soccer, cross-country, basketball, swimming, wrestling, indoor and outdoor track, hockey, rifle and pistol, baseball, tennis, golf, lacrosse, gymnastics, and skiing.

The Athletic Department also supports a broad program of intramural activities, in which all students are encouraged to participate. The range of sports available each year includes the team sports of touch football, basketball, softball, and volleyball. Individual activities include tennis, bowling, badminton, golf, squash, and handball.

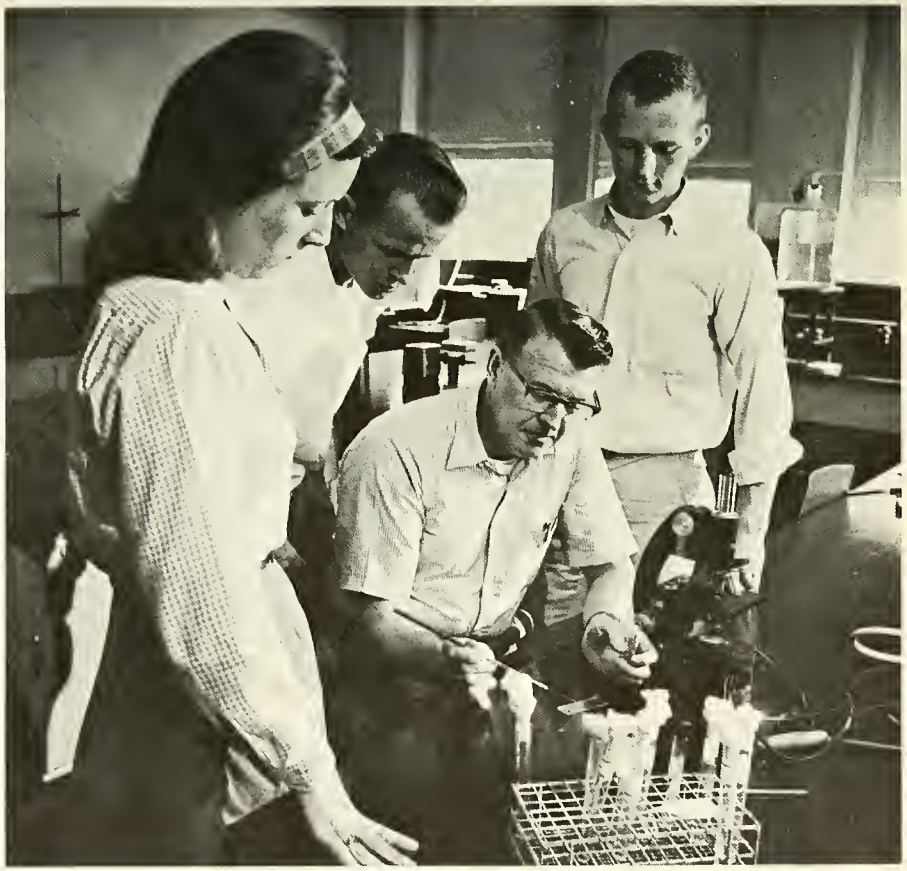
The University Intercollegiate Athletic Program is supervised by the University Athletic Council and is composed of the following members: five faculty members appointed by the President, three alumni representatives appointed by the Directors of the Alumni Association, the Executive Director of the Alumni Association, and ex officio, the Director of Athletics.

The University of Massachusetts is a member of the Yankee Conference, the National Collegiate Athletic Association, the Eastern College Athletic Conference, the Association of New England Colleges for Conference on Athletics, and the Intercollegiate Athletic Association.

Women's Physical Education Building.

A few of the activities associated with the major areas in the School of Physical Education.

Frank L. Boyden Physical Education Building for Men.



Student-Faculty Research Projects are part of the Public Health teaching program.

DEPARTMENT OF PUBLIC HEALTH

Robert W. Gage, *Chairman*

The Department of Public Health offers undergraduate instruction in the area of environmental health, public health administration, and medical technology. It also offers a graduate program leading to the degree of Master of Science in Environmental Health.

PUBLIC HEALTH. Public health practice is offering an increasing variety of significant career opportunities in many areas. Among these are the following: (1) administration of community health services; (2) general or specialized direction of environmental health services; (3) work and research in the basic sciences related to health; (4) work in the food and drug protective services; (5) involvement in health education, and (6) participation in programs of health

Faculty study new methods for solving environmental health problems.

information and communication. It is the intent of the Department of Public Health to provide, within the University's framework of presenting a liberal education to all its students, a basis for competence and skill in at least one of these areas. In addition, the program is intended to provide a solid comprehensive foundation upon which subsequent specialized or graduate study can be continued in any of the major areas of public health.

MEDICAL TECHNOLOGY. The curriculum in medical technology is recommended for young men and women in preparation for a wide variety of occupational opportunities. Medical technology graduates may be prepared for positions in medical laboratories, in federal, state, and local health departments, and in commercial and research laboratories. In this area there are two possibilities for arrangement of the curriculum. Students may complete the full four years of undergraduate instruction and, after receiving their baccalaureate degree, enter a 12-month internship in an approved hospital laboratory. At the end of this (fifth) year of preparation, the student will be eligible for examination by the American Society of Clinical Pathologists to quality for the Registry of Medical Technology.

An optional three-and-one program is now offered which allows the student to obtain the baccalaureate degree and complete the requirements for examination for registration in a total of four years. In this program the student is able to complete the University's core requirements and complete the preparation for the clinical laboratory training within three years. The fourth year of study is taken in one of the hospitals affiliating with this department and approved for clinical laboratory training. Academic credit is granted for participation in this program so that by the end of four years, a student will have gained a total of 120 credits, which is sufficient for graduation.

ROTC — Ready for action.

Army ROTC Cadets on a winter practical training exercise.

UMass Cadet is given a pre-flight briefing on the F-106.

Cadets are briefed at Pentagon by Secretary of the Air Force, Eugene Zuckert.

DIVISION OF MILITARY AND AIR SCIENCE

The Division of Military and Air Science includes the Department of Military Science and the Department of Air Science. No major is offered in either department. Effective academic year 1963-1964, the ROTC (Army and Air Force) program became voluntary. Male students who are physically qualified may register in the two-year basic ROTC course and receive credit toward graduation. Completion of the basic course is a requirement for enrollment in the advanced course which leads to a commission in the armed forces.

DEPARTMENT OF MILITARY SCIENCE (GMS)

Joseph A. Bohnak, Colonel, U. S. Army, *Head*

The Army Reserve Officers Training Corps is the means by which young men who have taken the leadership step of coming to the state university may assure themselves that their military service is performed in commissioned status. The first two years are basic training in leadership and citizenship. The student is informed on the position of the military in the current scene and as it relates to his future. The second two years of ROTC are not only elective, but selective. The best qualified students are selected and are permitted to contract to continue on to a commission. The Army provides these men a subsistence allowance and additional emoluments. There is a six-week summer camp training period between the junior and senior year. Participation in ROTC has notable effect in character development. It also discloses to the Army existing officer material and its potential leaders. Successful completion of this program leads to a commission as a Second Lieutenant, U. S. Army. Active duty requirements are, at the present time, two years service with an active Army unit.

Beginning with school year 1965-66 a two (2) year program, which substitutes an additional six (6) week summer camp for the basic course, is offered to transfer students and others unable to take the basic course. As of school year 1965-66 ROTC scholarships are also available to members of the advanced course.

DEPARTMENT OF AIR SCIENCE

Roy D. Simmons, Lt. Colonel, USAF, *Head*

The mission of the Department of Air Science is to develop in select students those qualities of leadership and other attributes essential to their progressive advancement to positions of increasing responsibility as commissioned officers. It is not expected that all students commissioned will select the United States Air Force as a career; however, the program provides excellent preparation for such a career. Further, even though an Air Force career is not selected, the experience gained and the leadership qualities developed will enhance professional and managerial opportunities in the business society.

The program is presented in two phases; the Freshman and Sophomore years are designated as the Basic Course, and the Junior and Senior years as the Advanced Course.

The first two years of the program are not obligatory and are designed primarily to educate the student to the point where he can make a more intelligent decision concerning his military obligation and whether a tour of active duty as a commissioned officer corresponds with his career objectives.

COURSE REQUIREMENTS IN THE FRESHMAN YEAR

The following listings are designed to give prospective students a complete schedule of the courses required in the freshman year in all colleges and schools of the University.

Notes: Courses in Military and Air Science, although listed among the programs below, are elective offerings and are not required for graduation.

COLLEGE OF AGRICULTURE

1st Semester	*Credits*
ENGLISH 111	2
SPEECH 101*	2
MATHEMATICS	3
CHEMISTRY 111	3
BOTANY 100	3
MILITARY OR AIR SCIENCE 111 (MEN)	1
AGRICULTURAL AND FOOD ECONOMICS 110	2
PHYSICAL ED. 001A, B	0

2nd Semester	*Credits*
ENGLISH 112	2
SPEECH 101*	2
MATHEMATICS	3
CHEMISTRY 112	3
ZOOLOGY 101	3
ELECTIVE[1]	3
MILITARY OR AIR SCIENCE 112 (MEN)	1
PHYSICAL ED. 002A, B	0

[1]A foreign language may be substituted for the Agricultural and Food Economics-elective sequence.

*May be taken either semester or during a later year.

Freshmen majoring in Agricultural Engineering take the program listed under the School of Engineering. Freshmen majoring in Landscape Architecture will take Government 125 in place of Zoology 101, Art 100 in place of Food Economcis 110, and Sociology in place of Chemistry 112. Majors in Restaurant and Hotel Management take Restaurant and Hotel Management 100 in place of Botany 100, and Microbiology 150 in place of Zoology 101.

COLLEGE OF ARTS AND SCIENCES

1st Semester	*Credits*
ENGLISH 111	2
SPEECH 101*	2
MATHEMATICS OR NATURAL SCIENCE[1]	3
NATURAL SCIENCE OR HISTORY 100[2]	3
FOREIGN LANGUAGE[3]	3
ELECTIVE[4]	3
MILITARY OR AIR SCIENCE 111 (MEN)	1
PHYSICAL ED. 001A, B	0

2nd Semester	*Credits*
ENGLISH 112	2
SPEECH 101*	2
MATHEMATICS OR NATURAL SCIENCE[1]	3
NATURAL SCIENCE OR HISTORY 101[2]	3
FOREIGN LANGUAGE[3]	3
ELECTIVE[4]	3
MILITARY OR AIR SCIENCE 112 (MEN)	1
PHYSICAL ED. 002A, B	0

[1]Candidates for the B.S. degree take Mathematics. Those planning to major in chemistry or physics should, if possible, elect Mathematics 135 and 136.

[2]Candidates for the B.S. degree take natural science; candidates for the B.A. degree take History 100 and 101.

[3]Subject to exemption on basis of proficiency examination.

[4]Candidates for the B.S. degree take science.

*May be taken either semester.

SCHOOL OF BUSINESS ADMINISTRATION

In each subject a one year sequence is required.

1st Semester	*Credits*
ENGLISH 111	2
SPEECH 101*	2
MATHEMATICS	3-4
HIST. 100, 150, OR GOVT. 100	3
SCIENCE: ELECT ONE	3
CHEMISTRY 111	
PHYSICS 103	
BOTANY 100	
GEOLOGY 101	
ZOOLOGY 101	
ELECTIVE	3
MILITARY OR AIR SCIENCE 111	1
PHYSICAL ED. 001A, B	0

2nd Semester	*Credits*
ENGLISH 112	2
SPEECH 101*	2
MATHEMATICS	3-4
HIST. 101, 151, OR GOVT. 150	3
SCIENCE: ELECT ONE	3
CHEMISTRY 112	
PHYSICS 104	
BOTANY 125	
GEOLOGY 102	
ZOOLOGY 125 AND 135	
ELECTIVE	3
MILITARY OR AIR SCIENCE 112	1
PHYSICAL ED. 002A, B	0

*May be taken either semester.

SCHOOL OF EDUCATION

1st Semester	*Credits*
ENGLISH 111	2
SPEECH 101*	2
MATH. 111 OR CHEM. 111	3
ZOOL. 101 OR BOT. 100	3
FOREIGN LANG.**	3
HISTORY 100	3
EDUCATION 109†	0
MILITARY OR AIR SCIENCE 111 (MEN)	1
PHYSICAL ED. 001A, B	0

2nd Semester	*Credits*
ENGLISH 112	2
SPEECH 101*	2
MATH. 112 OR CHEM. 112	3
BOT. 100 OR ZOOL. 101	3
FOREIGN LANG.**	3
HISTORY 101	3
EDUCATION 109†	0
MILITARY OR AIR SCIENCE 112 (MEN)	1
PHYSICAL ED. 002A, B	0

*May be taken either semester.

**Intermediate Proficiency Required.

†To be completed in a school year.

SCHOOL OF ENGINEERING

1st Semester	*Credits*
ENGLISH 111, COMPOSITION	2
SPEECH 101, PUBLIC SPEAKING	2
MATH, 135, CALCULUS	3
CHEM. 111 OR 113, GENERAL*	3-4
ENGINEERING 103, GRAPHICS	3
SOCIAL SCIENCE ELECTIVE	3
MILITARY OR AIR SCIENCE 111**	1
PHYSICAL ED. 001A, B	0

2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
MATH. 136, CALCULUS	3
CHEM. 112 OR 114, GENERAL*	3-4
ENGINEERING 104, PROBLEMS	2
PHYSICS 105, GENERAL	3
SOCIAL SCIENCE ELECTIVE	3
MILITARY OR AIR SCIENCE 112**	1
PHYSICAL ED. 002A, B	0

*It is recommended that Chemical Engineering majors take Chemistry 113 and 114 in place of Chemistry 111 and 112.

**Military or Air Science is optional.

SCHOOL OF HOME ECONOMICS

Key: FN — Food and Nutrition
TCEA — Textiles, Clothing and Environmental Arts
HEEd. — Home Economics Education

MAJOR IN DIETETIC AND INSTITUTIONAL ADMINISTRATION

1st Semester	*Credits*
ENGLISH 111, COMPOSITION	2
CHEMISTRY 111, GENERAL	3
HEEd. 120, INTRO. TO H. EC.	1
FN 127, MAN & NUTRITION	3
SOCIOLOGY 101, INTRODUCTORY	3
HISTORY, GOVERNMENT OR MATH.	3
PHYSICAL ED. 001A, B	0
2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
SPEECH 101, ORAL COMMUNICATION	2
CHEMISTRY 112, GENERAL	3
ZOOLOGY 101, INTRODUCTORY	3
FN 130, FOOD SCIENCE & PREP.	3
PSYCHOLOGY 101, GENERAL	3
PHYSICAL ED. 002A, B	0

MAJOR IN FOOD AND NUTRITION IN BUSINESS

1st Semester	*Credits*
ENGLISH 111, COMPOSITION	2
SPEECH 101, ORAL COMMUNICATION	2
SOCIOLOGY 101, INTRODUCTORY	3
CHEMISTRY 111, GENERAL	3
FN 127, MAN & NUTRITION	3
HEEd. 120, INTRO. TO H. EC.	1
PHYSICAL ED. 001A, B	0
2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
PSYCHOLOGY 101, GENERAL	3
CHEMISTRY 112, GENERAL	3
ZOOLOGY 101, INTRODUCTORY	3
FN 130, FOOD SCIENCE & PREP.	3
ONE OF THE FOLLOWING: ART 120, PHILOSOPHY 105, 125, 110, 243, OR MUSIC 101	3
PHYSICAL ED. 002A, B	0

MAJOR IN FASHION MERCHANDISING

1st Semester	*Credits*
ENGLISH 111, COMPOSITION	2
SCIENCE OR MATH	3
SOCIOLOGY 101, INTRODUCTORY	3
LANGUAGE	3
HEEd. 120, INTRO. TO H. EC.	1
TCEA 123, ART FOR LIVING	3
PHYSICAL ED. 001A, B	0
2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
SCIENCE OR MATH	3
PSYCHOLOGY 101, GENERAL	3
LANGUAGE	3
FN 127, MAN & NUTRITION	3
TCEA 124, TEXTILES I	3
PHYSICAL ED. 002A, B	0

MAJOR IN SECONDARY EDUCATION AND EXTENSION

1st Semester	*Credits*
ENGLISH 111, COMPOSITION	2
SPEECH 101, ORAL COMMUNICATION	2
CHEMISTRY 111, GENERAL	3
FN 127, MAN & NUTRITION	3
SOCIOLOGY 101, INTRODUCTORY	3
HEEd. 120, INTRO. TO H. EC.	1
PHYSICAL ED. 001A, B	0
2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
PSYCHOLOGY 101, GENERAL	3
CHEMISTRY 112, GENERAL	3
MATH, 111, INTRODUCTORY	3
TCEA 124, TEXTILES I	3
PHYSICAL ED. 002A, B	0

MAJOR IN CHILD DEVELOPMENT

1st Semester	*Credits*
ENGLISH 111, COMPOSITION	2
FOREIGN LANGUAGE OR PROFICIENCY	3
PSYCHOLOGY 101, GENERAL	3
FN 127, MAN & NUTRITION	3
SPEECH 101, ORAL COMMUNICATION	2
HEEd. 120, INTRO. TO H. EC.	1
PHYSICAL ED. 001A, B	0
2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
FOREIGN LANGUAGE OR PROFICIENCY	3
SOCIOLOGY 101, INTRODUCTORY	3
TCEA 123, ART FOR LIVING	3
ZOOLOGY 101, INTRODUCTORY	3
ELECTIVE	3
PHYSICAL ED. 002A, B	0

SCHOOL OF NURSING

SCHOOL OF NURSING

1st Semester	*Credits*
ENGLISH 111, ENGLISH COMPOSITION	2
CHEMISTRY 111, GENERAL	3
PSYCHOLOGY 101, GENERAL	3
SOCIOLOGY 101, INTRODUCTION	3
ELECTIVE*	3
SPEECH 101**, ORAL COMMUNICATION	2
PHYSICAL ED. 001A, B	0
2nd Semester	*Credits*
ENGLISH 112, ENGLISH COMPOSITION	2
CHEMISTRY 112, GENERAL	3
ZOOLOGY 101, INTRODUCTORY	3
ELECTIVE*	3
SPEECH 101**, ORAL COMMUNICATION	2
NURSING 100, INTRODUCTION	3
PHYSICAL ED. 002A, B	0

*Elective chosen from: History, Government or Economics. Students who wish to elect a foreign language may do so providing the basic requirement of six elective credits in the social sciences is fulfilled. If a language is elected, intermediate proficiency is required.

**May be taken either semester.

SCHOOL OF PHYSICAL EDUCATION

PHYSICAL EDUCATION FOR MEN

1st Semester	*Credits*
ENGLISH 111, COMPOSITION	2
HUMANITIES, ELECTIVE	3
PE 121 INTRO. TO PHYS. ED.	3
PE 123 PRINC. OF HEALTH ED.	3
PE 105 SKILLS & TECHNIQUES (LACROSSE — GYMNASTICS)	1
Elect One	
CHEMISTRY 111	3
BOTANY 100	3
ZOOLOGY 101	3
2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
SPEECH 101, COMMUNICATION	2
SOCIAL SCIENCE ELECTIVE	3
PE 122 FIRST AID & SAFETY	3
PE 106 SKILLS & TECHNIQUES (GYM — BADMINTON — VOLLEYBALL)	1
Elect One	
CHEMISTRY 112	3
BOTANY 100	3
ZOOLOGY 101	3

PHYSICAL EDUCATION FOR WOMEN

1st Semester	*Credits*
ENGLISH 111, COMPOSITION	2
HISTORY 100, MOD. EUROP. CIVIL.	3
PSYCH. 101, GENERAL	3
WPE 110, HEALTH FOR ADULTS	2
WPE, 105, INTRODUCTION TO PHYSICAL EDUCATION	2
WPE 111, SKILLS	1
ELECTIVE	3

2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
SPEECH 101, COMMUNICATION	2
HISTORY 101, MODERN EUROP. CIVIL.	3
ZOOLOGY 101, INTRODUCTORY	3
WPE 106, INTRODUCTION TO THE CHILD THROUGH PHYSICAL EDUCATION	2
WPE 112, SKILLS	1
ELECTIVE	3

Chemistry 111 and 112 are required if students have not had chemistry in high school. Others may select from chemistry, physics, microbiology or foreign language.

RECREATION

1st Semester	
ENGLISH 111, COMPOSITION	2
SPEECH 101	2
BOTANY 100, INTRO. BOTANY	3
GOVT. 100, AMERICAN GOVT.	3
HUMANITIES ELECTIVE	3
REC. 101, INTRO. TO REC.	3
GEN. PHYS. ED. 001A, B	0
MILITARY OR AIR SCIENCE 111 (MEN)	1
2nd Semester	*Credits*
ENGLISH 112, COMPOSITION	2
STATISTICS 121	3
ZOOL. 101, INTRO. ZOOL.	3
SOC. 101, INTRO. TO SOC.	3
M. P. E. 122, FIRST AID & SAFETY	3
REC. 111, SOC. REC.	2
GEN. PHYS. ED. 002A, B	0
MILITARY OR AIR SCIENCE 112 (MEN)	1

DEPARTMENT OF PUBLIC HEALTH

PUBLIC HEALTH

1st Semester	*Credits*
ENGLISH 111	2
SPEECH 101, I OR II*	2
MATHEMATICS 111 OR 123**	3
CHEMISTRY 111, GENERAL	3
ZOOLOGY 101	3
PSYCHOLOGY 101 OR SOCIOLOGY 101	3
PHYS. ED. 001A, B	0
2nd Semester	*Credits*
ENGLISH 112	2
SPEECH 101, I OR II*	2
MATHEMATICS 112, OR 124*	3
CHEMISTRY 112, GENERAL	3
ZOOLOGY 135 OR ELECTIVE	3
PSYCHOLOGY 101 OR SOCIOLOGY 101	3
PHYS. ED. 002A, B	0

MEDICAL TECHNOLOGY

1st Semester	*Credits*
ENGLISH 111	2
SPEECH 101, I OR II*	2
CHEMISTRY 111, GENERAL	3
BOTANY 100, OR ZOOLOGY 101	3
FOREIGN LANGUAGE***	3
MATHEMATICS 111 OR 123** OR ELECTIVE	3
PHYS. ED. 001A, B	0
2nd Semester	*Credits*
ENGLISH 112	2
SPEECH 101, I OR II*	2
CHEMISTRY 112, GENERAL	3
BOTANY 100 OR ZOOLOGY 101	3
FOREIGN LANGUAGE***	3
MATHEMATICS 112, OR 124** OR ELECTIVE	3
PHYS. ED. 002A, B	0

*May be taken either semester.

**On basis of placement tests and interest in advanced science.

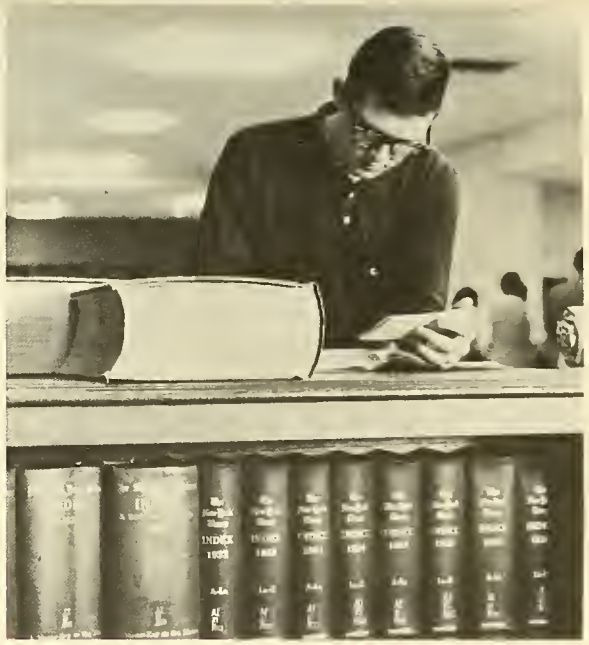
***If a language is elected, intermediate proficiency is required.

DEPARTMENT OF MILITARY SCIENCE (GMS)

1st Semester	*Credit*
MS 111 INTRODUCTION TO MILITARY SCIENCE	1
2nd Semester	*Credits*
MS 112 INTRODUCTION TO MILITARY SCIENCE	1

DEPARTMENT OF AIR SCIENCE

1st Semester	*Credits*
Air Science 111 FUNDAMENTALS OF MILITARY SYSTEMS II	1
2nd Semester	*Credits*
Air Science 112 FUNDAMENTALS OF MILITARY SYSTEMS II	1



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All correspondence concerning the *Amherst campus* should be addressed to the appropriate office, University of Massachusetts, Amherst, Massachusetts.

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THE UNIVERSITY OF MASSACHUSETTS

FINANCIAL REPORT

FOR THE YEAR ENDED JUNE 30, 1965

UNIVERSITY OF MASSACHUSETTS

FINANCIAL REPORT

FOR THE YEAR ENDED JUNE 30, 1965

Kenneth W. Johnson
Treasurer

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Audit

In accordance with state law, all accounts of the University are examined each year by the State Auditor. The last audit covered the period of this report from July 1, 1964 to June 30, 1965.

All statements and schedules of state funds contained herein have been examined and verified by the Comptroller's Bureau of the Commonwealth.

Schedule A

Balance Sheet as of June 30, 1965

Assets

I.	State Funds		
	Appropriation Balances held by State Treasurer		
	Other Maintenance	$ 93,428.98	
	Special Appropriation	92,122.97	
	Capital Outlay	3,668,339.85	
	Accounts Receivable	11,527.50	
	Inventory Supplies	1,097,732.01	
			$ 4,963,151.31
II.	Federal Funds		
	Cash - The First National Bank of Amherst	333,078.62	
	Notes Receivable - National Defense Student Loan - Nursing Program	1,184,408.89	
			1,517,487.51
III.	Endowment Funds		
	Income Account - Cash, Amherst Savings Bank	10,000.00	
	Income Account - Cash, First National Bank of Amherst	41,372.76	
	Principal Account - Amherst Savings Bank	5,031.79	
	Principal Account - First National Bank of Amherst	27,262.39	
	Principal Account - Pool Investment Securities	584,269.14	
	Principal Account - Investment - Land	152,905.40	
	Principal Account - Securities not Pooled	7,500.00	
	Unamortized Premiums on Pool Investments	3,113.38	
	Accrued Interest on Bond Investments	169.06	
	First National Bank of Amherst - Trust Dept. - Income	3,537.20	
			835,161.12
IV.	Trust and Agency Funds		
	Cash on Hand	11.68	
	Cash - Amherst Savings Bank	113,840.48	
	Cash - Bay State Savings Bank	50,000.00	
	Cash - Commerce Bank & Trust Co., Worcester	100,000.00	
	Cash - East Cambridge Savings Bank	26,600.55	
	Cash - Easthampton Savings Bank	70,000.00	
	Cash - First National Bank of Amherst	366,706.08	
	Cash - First National Bank of Boston	100,000.00	
	Cash - First National Bank of Boston - Variable Interest Account	1,245,324.66	
	Cash - Holyoke National Bank	100,000.00	
	Cash - Lowell Five Cent Savings Bank	26,502.56	
	Cash - Provident Institution for Savings	50,000.00	
	Cash - Springfield Five Cent Savings Bank	50,000.00	
	Cash - State Street Bank and Trust Company	325,329.99	
	Cash - Union Savings Bank	50,000.00	
	Cash - Ware Savings Bank	66,318.95	
	Cash - Woronoco Savings Bank	50,000.00	
	Notes Receivable	34,490.63	
	New England Society of New York City - Petty Cash	200.00	
			2,825,325.58
V.	U of M Trustee, U of M Building Authority		
	First Project	76,499.17	
	Second Project	128,776.60	
			205,275.77
VI.	Plant Funds		
	Land	3,071,490.00	
	Buildings*	40,549,397.00	
	Improvements other than Buildings	6,324,203.27	
	Equipment	9,804,041.33	
			59,749,131.60
	Total Assets		$70,095,532.89

*The University leases from the University of Massachusetts Building Association seventeen dormitories, two apartment buildings and a Student Union Building representing investment of $12,535,353. The principal is amortized and the building eventually becomes the property of the University.

The University of Massachusetts Building Authority operates six dormitories and a dining commons with a total investment of $8,925,000. These buildings will also become the property of the University when bonds are redeemed.

Schedule A (Continued)

Balance Sheet as of June 30, 1965

Liabilities, Reserves and Fund Balances

I. State Funds		
Total Appropriation Balances	$3,853,891.80	
Due State Treasurer	11,527.50	
Expendable Supplies	1,097,732.01	
		$ 4,963,151.31
II. Federal Funds		
Balance Federal Appropriations (Schedule B-5)	287,791.11	
National Defense Student Loan and Nursing Fund (Schedule A-4)	1,229,696.40	
		1,517,487.51
III. Endowment Funds		
Income on Investments - Balances (Schedule A-2)	55,079.02	
Principal of Fund (Schedule A-3)	698,633.46	
Reserve for Profits and Losses on Pool Investments	81,448.64	
		835,161.12
IV. Trust and Agency Fund		
Student Loan Funds (Schedule A-4)	75,574.74	
Scholarship Funds (Schedule B-8)	96,687.63	
Campus Activities (Schedule B-6)	1,808,748.46	
Research Funds - Industrial (Schedule B-8)	252,575.30	
Federal Grants - (Schedule B-8)	493,215.54	
Agency Funds - (Schedule B-7)	98,523.91	
		2,825,325.58
V. U of M Trustees, U of M Building Authority		
First Project	76,499.17	
Second Project	128,776.60	
		205,275.77
VI. Plant Funds		
Net Investment in Plant		59,749,131.60
Total Liabilities, Reserves and Fund Balances		$70,095,532.89

Schedule B

SUMMARY OF RECEIPTS, TRANSFERS AND BALANCES

. State Appropriations					
General Maintenance (Schedule B-1)		$17,077,000.00			
Other Maintenance:					
Current Year Appropriation (Schedule B-1)	$458,433.98				
Prior Year Appropriation	-93,768.18				
		552,202.16			
Less: Balances reverted to State Treasurer		55,487.82			
			$17,573,714.34		
Capital Outlay:*					
Balance, July 1, 1964	2,079,101.10				
Current Year Appropriation	2,000,000.00				
		4,079,101.10			
Less: Balances reverted to State Treaaurer	2,048.74				
8364-28-200 Transferred to Bureau of Building Conatruction	350,000.00				
		352,048.74			
			3,727,052.36		
Special Appropriation:					
Balance, July 1, 1964	57,052.62				
Current Year Appropriation	1,800,000.00				
			1,857,052.62		
Net Totals - State Appropriations				$23,157,819.32	
. Federal Appropriations (Schedule B-5)					
Balance, July 1, 1964			357,817.64		
Current Year Receipts			1,645,477.93		
Net Totals - Federal Appropriations				2,003,295.57	
Net Totals - State and Federal Appropriations					$25,161,114.89
. Endowment Fund Income (Schedule A-2)					
Balance, July 1, 1964				40,847.52	
Univeraity Endowment Fund Income				27,883.99	
State Endowment Fund Income				3,339.06	
Total					72,070.57
. Student Loan Funds (Schedule A-4)					
Balance, July 1, 1964			875,760.73		
Interest Income and Additions			436,977.81		
				1,312,738.54	
Less: Loans Canceled				7,467.40	
Total					1,305,271.14
. Revolving Trust Funds (Schedule B-6)					
Balance, July 1, 1964				1,437,421.18	
Current Year Receipts and Transfers				8,736,211.39	
Total					10,173,632.57
. Agency Funds (Schedule B-7)					
Balance, July 1, 1964				99,830.01	
Current Year Receipts and Transfers				1,352,837.34	
Total					1,452,667.35
. Special Gifts (Schedule B-8)					
Balance, July 1, 1964				1,417,403.70	
Scholarships, Current Year Receipts and Transfers				330,022.66	
Industrial and Federal Grants, Current Year Receipts and Transfers				5,343,699.10	
Total					7,091,125.46
. U of M Trustee for U of M Building Authority (Schedule B-10)					
Balance, July 1, 1964				85,414.22	
Current Year Receipts and Transfers				1,130,585.81	
Total					1,216,000.03
Net Total - Receipts, Transfers and Balances					$46,471,882.01

*This figure does not include appropriations for the Univeraity that are under the supervision and control of the State Bureau of Building Construction.

Schedule B (Continued)

SUMMARY OF EXPENDITURES, TRANSFERS AND BALANCES

	State Appropriations	Federal Appropriations	Other Funds	Total
I. & II. State and Federal Appropriations				
A. Administration	$ 1,181,572.74	$ --	$	$ 1,181,572.74
B. Resident Instruction	10,410,678.25	454,610.68		10,865,288.93
C. Experiment Station	1,118,733.65	612,922.81		1,731,656.46
D. Control Services	419,131.27	--		419,131.27
E. Extension Service	617,920.26	647,970.97		1,265,891.23
F. Operation of Plant	3,289,366.08			3,289,366.08
G. Other Maintenance	442,883.11			442,883.11
H. Capital Outlay	1,634,896.99			1,634,896.99
I. Special	188,745.17			188,745.17
Totals - State and Federal Appropriation Expenditures	$19,303,927.52	$1,715,504.46		$21,019,431.98
Balances - State and Federal Appropriations, June 30, 1965	3,853,891.80	287,791.11		4,141,682.91
Totals	$23,157,819.32	$2,003,295.57		$25,161,114.89
III. Endowment Income (Schedule A-2)			16,991.65	
Balance, June 30, 1965			55,079.02	
Total				72,070.57
IV. Student Loan Funds (Schedule A-4)				
Balance, June 30, 1965				1,305,271.14
V. Revolving Trust Funds (Schedule B-6)			8,364,884.11	
Balance, June 30, 1965			1,808,748.46	
Total				10,173,632.57
VI. Agency Funds (Schedule B-7)			1,354,143.44	
Balance, June 30, 1965			98,523.91	
Total				1,452,667.35
VII. Special Gifts (Schedule B-8)				
Scholarships			322,734.24	
Industrial and Federal Grants			5,925,912.75	
Balance, June 30, 1965			842,478.47	
Total				7,091,125.46
VIII. U of M Trustee for U of M Building Authority (Schedule B-10)			1,010,724.26	
Balance, June 30, 1965			205,275.77	
Total				1,216,000.03
Total - Expenditures, Transfers and Balances				$46,471,882.01

Schedule A-1

Endowment Funds - Principal
Statement of Pool Investments
as of June 30, 1965

Description	Date of Acquisition	Cost or Book Value	Market Value
overnment Bonds and Notes			
45,000 U. S. Treasury 3 3/4's due August 15, 1968	2/6/63	$ 45,006.01	$ 44,592.19
25,000 U. S. Treasury 4's due February 15, 1980	7/25/63 1/16/65	24,615.58	24,546.88
18,000 U. S. Treasury 3 1/4's due June 15, 1983/78	6/4/53	17,703.31	15,963.75
50,000 U. S. Treasury 4 1/4's due August 15, 1992/87	5/5/65 7/24/65	50,141.77	50,156.25
Total - Government Bonds and Notes		$137,466.64	$135,259.07

ortgages			Principal	Present Value
Massachusetts Kappa Corporation of Sigma Alpha Epsilon	4%	11/1/51	$ 20,000.00	$ 6,500.00
Theta Corporation of Theta Chi	4%	10/9/54	40,000.00	19,000.00
Total - Mortgages			$ 60,000.00	$ 25,500.00

ailroad Bonds	Date of Acquisition	Cost or Book Value	Market Value
3,000 Southern Pacific (Oregon Lines) First 7/9/51/ 4 1/2's due 3/1/77	7/9/51	$ 2,977.50	$ 2,962.50
Total - Railroad Bonds		$ 2,977.50	$ 2,962.50

Schedule A-1 (Continued)

Endowment Funds - Principal
Statement of Pool Investments
as of June 30, 1965

Utility and Industrial Bonds	Date of Acquisition		Cost or Book Value	Market Value
20,000 American Telephone & Telegraph Co. debenture 4 3/8's due May 1, 1999	7/10/63		$ 20,047.22	$ 19,600.00
8,000 Commonwealth Edison Co. sinking fund debenture 4 5/8's due 1/1/2009	2/20/59		8,182.75	8,270.00
10,000 Consolidated Edison Co. of New York, Inc., 1st. and ref. mortgage 5's, Series N, due 10/1/1987	11/26/57		10,421.64	10,375.00
10,000 Consolidated Edison Co. of New York, Inc. 1st. & ref. mortgage 4 5/8's, Series AA, due 12/1/1993	1/2/64		10,130.63	10,312.50
10,000 Florida Power & Light Co. 1st. mortgage 4 3/8's due June 15, 1986	2/6/59		9,875.00	9,925.00
10,000 Gulf States Utilities Co., 1st. mortgage 4 7/8's due 10/1/87	11/29/57		10,201.72	10,000.00*
20,000 General Motors Acceptance Corp. debentures 4 5/8's	7/6/64		20,196.64	20,225.00
20,000 Massachusetts Electric Co. 1st. mortgage 5's, Series F, July 1, 1991	7/14/61		20,353.44	21,050.00
10,000 Niagara Mohawk Power Corp., general mortgage 4 7/8's due Sept. 1, 1987	11/26/57		10,330.00	10,375.00
10,000 Philadelphia Electric Co. 1st. & ref. mortgage 4 5/8's due 9/1/87	11/26/57		10,166.92	10,175.00
10,000 Public Service Electric and Gas Co. 1st. and ref. mortgage due 8/1/1988	10/6/58		10,287.50	10,175.00
20,000 Shell Oil sinking fund debenture 4 5/8's due 8/1/1986	8/3/61		19,950.00	20,425.00
2,000 Southern California Edison Co. 1st. & ref. 3's due 9/1/65	12/5/54		2,000.00	2,005.00
5,000 Southern Natural Gas Co. 1st. mortgage pipe line sinking fund 4 3/4's due Jan. 1, 1979	4/24/59		5,190.54	5,125.00
10,000 Southwestern Bell Telephone Co. debenture 4 3/4's due 10/1/92	10/17/58 12/18/58	5,000 5,000	10,456.63	10,237.50
Total - Utility and Industrial Bonds			$177,790.63	$178,275.00

*Par Value - no quotation available.

Schedule A-1 (Continued)

Endowment Funds - Principal
Statement of Pool Investments
as of June 30, 1965

No. of Shares	Description	Date of Acquisition	Cost or Book Value	Market Value
	Common Stocks			
300	American Metal Climax, Inc.	12/26/63	$ 11,551.68	$ 13,200.00
858	American Telephone and Telegraph Company	7/19/51-1/19/65	25,566.43	56,842.50
200	Armco Steel Corporation	12/26/63	13,466.38	13,250.00
400	Baltimore Gas & Electric Company	5/2/57-11/24/59	7,014.76	14,850.00
300	Clark Equipment Company	12/26/63	13,323.00	13,650.00
394	Commonwealth Edison Company of New York	7/19/51-12/31/64	8,141.52	20,241.75
200	Consolidated Edison Company of New York	5/6/58	5,440.40	8,725.00
20	Dow Chemical Company	10/17/57-7/6/63	1,053.65	1,400.00
147	E. I. du Pont de Nemours and Company	7/19/51-2/3/59	4,560.45	33,516.00
210	Fireman's Fund Insurance Co.	7/17/61-4/30/63	6,837.50	7,297.50
100	First National Bank of Boston	7/6/61-12/26/63	8,184/22	9,075.00
200	First National City Bank of New York	5/11/65	12,284.80	10,700.00
86	General Electric Company	7/14/61-6/25/64	5,566.72	7,869.00
201	General Motors Company	12/31/63-1/6/65	14,825.69	18,466.88
300	Goodyear Tire and Rubber Co.	12/26/63	12,908.43	14,400.00
102	Gulf Oil Corporation	7/7/61-12/29/61	3,724.94	5,380.50
380	The Hartford Electric Co.	1/31/54-12/31/62	10,516.68	19,380.00
400	Hercules Powder Company	5/5/65	17,914.76	15,600.00
108	Monsanto Chemical Company	7/24/61-11/18/64	5,269.88	9,180.00
200	The Southern Company	5/2/57	4,577.62	13,025.00
100	Southern New England Telephone Co.	11/26/57-12/26/63	3,361.36	5,350.00
288	Standard Oil Company of New Jersey	7/19/51-12/26/63	6,432.95	21,852.00
300	Standard Oil Company of Indiana	7/19/51-10/23/64	6,556.25	12,975.00
200	Union Carbide Corporation	7/10/61-6/30/65	12,999.41	11,850.00
900	Virginia Electric & Power Company	1/31/54-12/26/63	8,546.77	41,737.50
300	S. D. Warren Company	12/26/63	13,021.50	13,800.00
	Total - Common Stocks		$243,647.75	$413,613.63

Schedule A-1 (Continued)

Endowment Funds - Principal
Statement of Investments not in Pool Fund
as of June 30, 1965

	Date of Acquisition	Cost or Book Value
Land		
Murray D. Lincoln	3/11/58	$ 41,765.00
	12/31/58	16,795.00
	2/23/60	33,600.00
	2/28/61	24,068.90
	1/17/62	36,676.50
Total - Land		$152,905.40
Stocks		
750 Shares David Buttrick, Cu. 7%	3/8/54	$ 7,500.00
TOTAL		$160,405.40

Schedule A-1 (Continued)

Endowment Funds - Principal
as of June 30, 1965

Summary of Pool Investments

	Cost or Book Value	% of Total
Invested in:		
Bonds		
Governments	$137,466.64	22.2
Railroads	2,977.50	.5
Public Utilities	127,187.36	20.5
Industrials	50,603.27	8.2
	318,234.77	51.4
Mortgages	25,500.00	4.1
Stocks		
Common		
Financial	31,884.14	5.1
Industrials	143,175.69	23.1
Utilities	68,587.92	11.1
	243,647.75	39.3
Total - Pool Securities	587,382.52	94.8
Cash		
Amherst Savings Bank @ 4%	5,031.79	.8
The First National Bank of Amherst - Uninvested Cash	27,062.39	4.4
The First National Bank of Amherst - Checking Account	200.00	.0
Total Cash	32,294.18	5.2
Total - Pool Investments	$619,676.70	100.0

Summary of Investments not in Pool

Land	
Murray D. Lincoln	$152,905.40
Stock	
Preferred Stock	7,500.00
Total - Investments not in Pool	$160,405.40
Total Endowment Funds	$780,082.10

Schedule A-2

Endowment Income
Statement of Receipts, Disbursements and Balances

Name and Purpose of Fund	Balance July 1, 1964	Receipts from Investments	Disbursements	Balance June 30, 196
Income Designated for General Purposes, Student Aid, Scholarships, Loans:				
Alpha Sigma Phi Scholarship	$ 555.69	$ 362.10	$ 275.00	$ 642.79
Alvord Dairy	235.24	214.06	125.00	324.30
Ascension Farm School	6,790.09	6,118.98	3,400.00	9,509.07
Danforth Keyes Bangs	454.08	298.96	200.00	553.04
Buttrick Scholarship	704.96	521.25	161.82	1,064.39
Seymour Barowsky	698.31	255.01	350.00	603.32
John Thomas and Nancy Butterworth	--	--	--	--
Lucius Clapp	680.01	445.78	--	1,125.79
Class 1882 Scholarship	64.29	79.82	39.91	104.20
Frederick C. Crane	1,262.09	1,301.48	625.00	1,938.57
Stephen Davis Scholarship	1,040.23	977.97	1,040.00	978.20
George L. Farley	1,579.91	255.02	--	1,834.93
Henry L. Folsom Hoo Hoo Club	--	154.73	--	154.73
Gassett Scholarship	119.74	74.58	50.00	144.32
Charles A. Glaason	610.74	190.32	300.00	501.06
Margaret Ruth Pomeroy Hamlin	--	892.10	--	892.10
Walter H. Harrison	--	603.67	603.67	--
Philip B. Hasbrouck	705.31	304.04	350.00	659.35
Clarence C. Hardy	31.06	6.10	--	37.16
Mrs. Clifton Johnson	215.50	174.00	--	389.50
Helen E. Knowlton	800.63	765.02	250.00	1,315.65
Albert P. Maderia	--	553.70	--	553.70
Porter L. Newton Educational	1,441.02	1,234.48	600.00	2,075.50
J. Clark Osterhout	119.14	20.23	50.00	89.37
Betsey C. Pinkerton	359.96	229.52	175.00	414.48
Charles S. Plumb	1,128.66	194.32	97.16	1,225.82
Frank H. Plumb	717.97	684.82	350.00	1,052.79
V. A. Rice Scholarship	138.30	135.15	75.00	198.45
Mary Robinson	161.54	153.00	--	314.54
Henry Franklin Staples	--	2,598.65	2,598.65	--
The Stockbridge School Alumni Fund	29.07	69.43	--	98.50
Whiting Street	162.68	103.12	100.00	165.80
Helen A. Whittier	179.06	170.25	150.00	199.31
	$20,985.28	$20,141.66	$11,966.21	$29,160.73
Prizes:				
Grinnell Prize	$ 98.22	$ 6.42	$ --	$ 104.64
Elizabeth L. McNamara	--	51.00	51.00	--
Allan Leon Pond	43.95	37.98	36.06	45.87
Betty Steinbugler	96.94	10.20	--	107.14
	$ 239.11	$ 105.60	$ 87.06	$ 257.65

Schedule A-2 (Continued)

Endowment Income
Statement of Receipts, Disbursements and Balances

Name and Purpose of Fund	Balance July 1, 1964	Receipts from Investments	Disbursements	Balance June 30, 1965
Books:				
Oscar G. Anderson Memorial	$ 469.35	$ 51.77	$ 25.00	$ 496.12
John C. Cutter	551.88	56.02	--	607.90
Library	317.12	565.70	132.70	750.12
Robert F. Pomeroy Library	353.64	78.34	--	431.98
	$ 1,691.99	$ 751.83	$ 157.70	$ 2,286.12
Miscellaneous Purposes:				
George A. Barber	610.11	258.78	795.10	73.79
Charles A. Peters	348.51	59.31	--	407.82
Hills Fund	1,368.82	791.76	409.00	1,751.58
Guy Chester Crampton	1,098.97	129.50	--	1,228.47
J. D. W. French	2,253.81	547.93	328.81	2,472.93
Murray D. Lincoln	--	73.00	--	73.00
William Proctor	1,018.58	102.01	--	1,120.59
The Ray E. Torrey Memorial Fund	--	5.00	--	5.00
Distinguished Visitors Committee	208.85	677.69	--	886.54
	$ 6,907.65	$ 2,644.98	$ 1,532.91	$ 8,019.72
General Purposes (Unrestricted):				
Joseph Bartlett	--	--	--	--
Burnham Emergency	434.77	394.86	288.29	541.34
Frederick H. Read	116.32	86.68	--	203.00
William R. Sessions	355.17	243.83	261.82	337.18
William Wheeler	516.63	553.67	404.48	665.82
	$ 1,422.89	$ 1,279.04	$ 954.59	$ 1,747.34
Undistributed Income	2,869.40	2,960.88	2,293.08	3,537.20
State Endowment Fund	6,731.20	3,339.06	--	10,070.26
TOTALS	$40,847.52	$31,223.05	$16,991.55	$55,079.02

Schedule A-3

Statement of Endowment Fund Principal

Name of Fund	Balance July 1, 1964	Additions	Deductions	Balance June 30, 1965
Alpha Sigma Phi Scholarship	$ 7,100.00	$	$	$ 7,100.00
Alvord Dairy	4,197.15			4,197.15
Oscar G. Anderson Memorial	1,015.00			1,015.00
Ascension Farm School	119,975.79			119,975.79
Danforth Keyes Bangs	5,861.58			5,861.58
George H. Barber	5,073.86			5,073.86
Joseph Bartlett	--			--
Seymour Borowsky	5,000.00			5,000.00
John Thomas and Nancy Butterworth	--	10,000.00		10,000.00
Burnham Emergancy	7,742.23			7,742.23
Buttrick Scholarship	10,000.00			10,000.00
Lucius Clapp	8,740.42			8,740.42
Addison H. Clark Memorial Fund	--	18,987.08		18,987.08
Class 1882 Scholarship	1,564.97	39.91		1,604.88
Guy Chester Crampton	2,539.03			2,539.03
Frederick G. Crane	25,518.08			25,518.08
John C. Cutter	1,098.41			1,098.41
Stephen Davis Scholarship	19,175.00			19,175.00
Distinguished Visitors Committee	12,393.49	9,679.72	4,049.32	18,023.89
Henry L. Folsom Hoo Hoo Club	--	10,638.95		10,638.95
George L. Farley	5,000.00			5,000.00
J. D. W. French	10,743.41			10,743.41
Kathryn F. Furcolo	--	7,310.26		7,310.26
Gassett Scholarship	1,462.20			1,462.20
Charles A. Gleason	3,731.73			3,731.73
Grinnell Prize	125.94			125.94
Clarence C. Hardy	119.65			119.65
Margaret Ruth Pomeroy Hamlin	17,200.28	1,021.41		18,221.69
Walter H. Harrison	11,836.14			11,836.14
Philip B. Hasbrouck	2,040.00			2,040.00
Hills Fund	15,523.89			15,523.89
Mrs. Clifton Johnson	3,411.47			3,411.47
Helen E. Knowlton	15,000.00			15,000.00
Library	11,007.50	20.35		11,027.85
Albert L. Maderia Scholarship	10,796.00	185.00		10,981.00
Elizabeth L. McNamara	1,000.00			1,000.00
Porter L. Newton Educational	24,204.46			24,204.46
J. Clark Osterhout	396.95			396.95
Charles A. Peters	1,162.77			1,162.77
Betsey C. Pinkerton	4,500.00			4,500.00
Charles S. Plumb	3,810.08	97.16		3,907.24
Frank H. Plumb	13,427.17			13,427.17
Robert F. Pomeroy Library	1,535.95			1,535.95
Allan Leon Pond	744.78			744.78
William Proctor	2,000.00			2,000.00
Frederick H. Read	1,699.55			1,699.55
V. A. Rice Scholarship	2,644.11	20.00		2,664.11
Mary Robinson	3,000.00			3,000.00
William R. Sessions	4,780.97			4,780.97
Henry Franklin Staples Memorial Fund	50,951.77			50,951.77
Stockbridge School Alumni	1,361.38	200.00		1,561.38
Betty Steinbugler	200.00			200.00
The Ray E. Torrey Memorial Fund	--	663.75		663.75
William Wheeler	10,855.91			10,855.91
Frank M. West Forestry Scholarship	--	12,284.80		12,284.80
Whiting Street Scholarship	2,021.70			2,021.70
Helen A. Whittier	3,338.22			3,338.22
Endowment from State (Principal of $142,000 held by State Treasurer)	--			--
Murray D. Lincoln Land	152,905.40			152,905.40
TOTALS	$631,534.39	$71,148.39	$4,049.32	$698,633.46

Schedule A-4

Statement of Student Loan Funds

Fund	Total June 30, 1964	Total Net Additions and Interest	Loan Transactions Loans Paid	Loans Made	Loans Cancelled	Balances, June 30, 1965 Notes	Cash	Total
D. K. Bangs	$ 6,694.32	$ 142.83	$ 6,866.92	$ 6,700.00	$	$ 4,635.16	$ 2,201.99	$ 6,837.15
Class of 1905	3,440.43	48.40	3,049.78	3,465.00		2,489.38	999.45	3,488.83
Vincent Goldthwait	17,169.74	56.87	8,089.31	10,140.00		8,294.98	8,931.63	17,226.61
Walter H. Harrison	4,420.50	603.67	--	--		--	5,024.17	5,024.17
Murray D. Lincoln	363.38	--	--	--		--	363.38	363.38
Massachusetts Assembly Loan Fund	26,806.51	-6,130.40	5,630.40	7,900.00		18,156.11	2,520.00	20,676.11
M. A. C. Club	605.35	17.17	185.00	--		--	622.52	622.52
Elizabeth L. McNamara	257.45	31.20	--	--		--	288.65	288.65
New England Feedmen's Assoc. Loan Fund	757.39	--	--	200.00		200.00	557.39	757.39
Sievers Memorial Fund	1,807.51	74.23	50.00	250.00		200.00	1,681.74	1,881.74
Henry F. Staples Memorial Fund	9,913.54	2,598.65	--	--		--	12,512.19	12,512.19
Graduate and Foreign Loan Fund	5,000.00	--	2,270.00	2,320.00		50.00	4,950.00	5,000.00
Sub-Totals	$ 77,236.12	$-2,557.38	$26,141.41	$30,975.00		$ 34,025.63	$40,653.11	$ 74,678.74
New England Society of New York	896.00	--	1,565.00	1,875.00		465.00	431.00	896.00
Totals - Trust Funds	$ 78,132.12	$ -2,557.38	$27,706.41	$32,850.00		$ 34,490.63	$41,084.11	$ 75,574.74
National Defense Student Loan Fund	797,628.61	429,535.19	25,386.95	434,300.00	7,467.40	1,183,958.89	35,737.51	1,219,696.40
Student Nursing Loan Fund	--	10,000.00	--	450.00		450.00	9,550.00	10,000.00
Totals - Federal Funds	$797,628.61	$439,535.19	$25,386.95	$434,750.00	$7,467.40	$1,184,408.89	$45,287.51	$1,229,696.40
Grand Totals - Student Loans	$875,760.73	$436,977.81	$53,093.36	$467,600.00	$7,467.40	$1,218,899.52	$86,371.62	$1,305,271.14

$30,975.00 was loaned to 206 students during the year from University Funds. 129 students received loans totaling $1,875.00 from the New England Society of New York Fund. This is a small emergency loan fund handled by the Dean of Men. $434,300.00 was loaned to 691 students from the National Defense Student Loan Fund. One student received $450.00 from the Nursing Student Loan Fund. A total of 1,027 students received $467,600.00 in loans for the year.

Schedule B-1

State Appropriations
Comparative Statement by Subsidiary Accounts

Code		1963	1964	1965
	General Maintenance 1350-01			
01	Salaries, Permanent Positions	$ 7,855,000.00	$ 9,465,665.00	$10,769,000.00
02	Salaries, Other	975,000.00	1,339,433.00	1,718,600.00
03	Services, Non-Employees	702,000.00	1,098,085.00	1,578,200.00
04	Food for Persons	2,400.00	1,475.00	2,500.00
05	Clothing	1,000.00	2,000.00	4,000.00
06	Housekeeping Supplies & Expenses	50,000.00	51,000.00	65,000.00
07	Laboratory, Medical & General Care	4,500.00	6,000.00	7,000.00
08	Heat and Other Plant Operations	616,000.00	685,000.00	705,000.00
09	Farm and Grounds	75,000.00	85,000.00	115,000.00
10	Travel & Automotive Expenses	83,000.00	98,500.00	119,100.00
11	Advertising and Printing	55,000.00	67,000.00	80,000.00
12	Repairs, Alterations & Additions	244,000.00	275,000.00	285,000.00
13	Special Supplies and Expenses	291,622.00	368,000.00	449,400.00
14	Office & Administrative Expenses	169,000.00	221,500.00	228,400.00
15	Equipment	--	2,000.00	107,800.00
16	Rentals	807,000.00	820,000.00	843,000.00
18	Special Outlay	1,378.00	18,915.00	--
	Sub-Totals	$11,931,900.00	$14,604,573.00	$17,077,000.00*
	Other Maintenance			
3304-44	Inland Fish & Game	$ 8,100.00	$ 8,100.00	$ 9,100.00**
1350-21	Research with Federal Grants	76,418.89	25,236.65	14,733.98**
1350-35-14	Entertainment of Distinguished Visitors	2,000.00	2,000.00	2,000.00**
1350-36-16	Rental Fee - President's House	1,200.00	1,200.00	1,200.00**
1350-70-03	Senior Internship	--	35,000.00	35,000.00**
1350-96-13	For Certain Scholarships	25,000.00	300,000.00	396,400.00**
3850-01-13	University of Massachusetts Scholarships	50,000.00	--	--
1350-38	Employment of Personnel - Medical School	100,000.00	--	--
	Capital Outlay and Special Appropriations	1,060,500.00	2,402,500.00	3,800,000.00***
	Totals	$13,255,118.89	$17,378,609.65	$21,335,433.98

*Authorized by Chapter 337 of the Acts of 1964	$16,887,000.00
*Authorized by Chapter 665 of the Acts of 1964	190,000.00
**Authorized by Chapter 337 of the Acts of 1964	458,433.98
***Authorized by Chapter 665 of the Acts of 1964	100,000.00
***Authorized by Chapter 640 of the Acts of 1964	2,000,000.00
***Authorized by Chapter 388 of the Acts of 1965	1,500,000.00
***Authorized by Chapter 562 of the Acts of 1964	200,000.00

Schedule B-2

Capital Outlay Current Year Appropriations

8065-35	Procurement and Installation of Academic and Operational Equipment, Television Equipment for School of Education, and a Computer	$1,000,000.00
8065-28	Plans for Roads, Sidewalks, Parking Areas, etc., and Construction of First Phase	1,000,000.00
	Total	$2,000,000.00*

*Authorizad by Chapter 640 of the Acts of 1964.

Special Current Year Appropriations

1350-38	University of Massachusetts Medical School	$ 100,000.00*
1350-39	University of Massachusetts - Boston	1,500,000.00**
1350-39	University of Massachusetts - Boston	200,000.00***
	Total	$1,800,000.00

*Authorized by Chapter 665 of the Acts of 1964.

**Authorized by Chapter 388 of the Acts of 1965.

***Authorized by Chapter 562 of the Acts of 1964.

Schedule B-3

Capital Outlay Appropriations*

8065-29 U64-2	For the construction of a classroom, laboratory and office building for the college of arts and sciences, including the cost of furnishings, equipment and site development, to be expended in connection with any federal funds available for the purpose and to be in addition to the amount appropriated in item 8064-28 of section two of chapter six hundred and forty-eight of the acts of nineteen hundred and sixty-three; and including the preparation of plans for the further development of facilities for the college of arts and sciences	$3,128,000
8065-30 U64-3	For the preparation of plans for research facilities, classrooms and laboratories for the graduate school, to be in addition to the amount appropriated in item 8064-29 of section two of chapter six hundred and forty-eight of the acts of nineteen hundred and sixty-three	$ 272,000
8065-31 U64-5	For the construction of a central storage building, including the renovation of the existing building and including the cost of furnishings, equipment and site development, to be in addition to the amount appropriated in item 8064-27 of section two of chapter six hundred and forty-eight of the acts of nineteen hundred and sixty-three	$1,500,000
8065-32 U60-2	For the construction of additional athletic facilities, including the demolition of existing structures, site development and utility services, to be in addition to the amount appropriated in item 8262-14 of section two of chapter five hundred and forty-four of the acts of nineteen hundred and sixty-one	$1,022,000
8065-33 U63-2	For the renovation of certain older classroom buildings, including the cost of furnishings and equipment; to be in addition to the amount appropriated in item 8364-26 of section two of chapter five hundred and twenty-two of the acts of nineteen hundred and sixty-three; and for the preparation of plans for the renovation of additional older classroom, laboratory and office buildings	$ 730,000
8065-34 U63-7	For certain improvements and additions to the power plant and utility distribution systems, including the cost of purchase and installation of equipment and a survey and plans for the future power plant and utility service needs of the university, to be expended with any federal funds available for the purpose and to be in addition to the amount appropriated in item 8064-25 of section two of chapter six hundred and forty-eight of the acts of nineteen hundred and sixty-three	$1,667,000
	Total	$8,329,000

*The above Capital Outlay Appropriations are under the supervision and control of the State Bureau of Building Construction.

Schedule B-4

Comparative Statement of Funds forwarded to State Treasurer
on account of Income from Fees, Sales and Services

	1963		1964		1965	
Instruction:						
Hospital	$ 6.00		$ --		$ --	
Tuition	1,439,221.22		1,679,349.85		2,041,257.16	
Tuition - Summer School	97,444.00		107,139.00		187,624.75	
Sales, Productive Enterprises	57,893.90		54,514.93		60,397.57	
Other Student Receipts	19,840.90		23,794.63		21,432.56	
Other Sales	10,228.97		14,205.55		22,602.76	
Reimbursement for Services - Federal Government	888.00		461.00		416.00	
		1,625,522.99		1,879,464.96		2,333,730.80
Extension Services:						
Miscellaneous		309.70		580.73		843.90
Experiment Station:						
Sales	2,787.25		3,931.84		4,278.89	
Waltham Field Station	65.00		105.00		21.00	
		2,852.25		4,036.84		4,299.89
Control Services:						
Fertilizer Law	19,440.83		20,908.93		22,233.20	
Poultry Disease Law	28,676.99		32,342.23		27,568.35	
Dairy Glassware	614.10		570.42		678.92	
Commercial Feedstuffs	32,060.00		30,920.00		30,140.00	
Seed Law	1,734.50		1,660.00		1,491.25	
Dairy Cattle Certification	9,974.65		9,987.65		5,922.30	
Drivers of Bulk Milk Tank Trucks	348.00		100.00		116.00	
		92,849.07		96,489.23		88,150.02
Operation of Plant:						
Students' Room Rent	909,671.81		934,004.78		859,353.26	
Transient Rent	12,496.81		24,268.63		20,825.39	
Employees' Rent	118,315.16		121,826.52		139,275.70	
Other Rents	103,535.37		104,022.70		104,672.04	
Miscellaneous	1,960.78		32,203.41		41,344.84	
Reimbursement for Services, Boarding Hall	140,000.00		148,000.00		152,000.00	
		1,285,979.93		1,364,326.04		1,317,471.23
Miscellaneous:						
Other	18,531.23		30,122.87		20,995.78	
Reimbursement for Services - Federal Gov't - Res. Project	62,452.51		9,167.54		--	
Reimbursement for Services - Other than Federal Gov't - Research Project	13,966.38		16,069.11		14,733.98	
		94,950.12		55,359.52		35,729.76
Totals		$3,102,464.06		$3,400,257.32		$3,780,225.60

Schedule B-5

Federal Funds
Statement of Receipts, Disbursements and Balances

	Balance July 1, 1964	Receipts	Disbursements	Balance June 30, 1965
Instruction:				
Bankhead Jones	$275,100.74	$ 272,375.97	$ 412,197.42	$135,279.29
Land Grant	7,099.50	7,300.00	4,122.07	10,277.43
Morrill-Nelson	--	33,333.33	33,333.33	--
Smith Hughes (Dept. of Education)	- 184.32	4,723.12	4,860.62	- 321.82
Water Resources Research Center	--	52,297.29	97.24	52,200.05
Totals	$282,015.92	$ 370,029.71	$ 454,610.68	$197,434.95
Extension Service:				
Federal Smith, Lever Act as amended 1953	$ 25,782.90	$ 546,912.00	$ 551,559.06	$ 21,135.84
Research and Marketing	2,019.89	57,060.03	53,752.89	5,327.03
Contract No. 12-05-300-36	577.19	--	577.19	--
Contract No. 12-05-300-58	7,276.35	--	4,301.02	2,975.33
Contract No. 12-05-300-73	--	15,000.00	8,707.07	6,292.93
Contract No. 12-05-300-79	--	2,500.00	1,816.82	683.18
Pesticide - Chemical	--	23,168.00	14,692.55	8,475.45
Rural Civil Defense	159.41	14,854.19	12,564.37	2,449.23
Totals	$ 35,815.74	$ 659,494.22	$ 647,970.97	$ 47,338.99
Experiment Station:				
Hatch Amended	$ 24,941.76	$ 443,638.00	$ 438,733.99	$ 29,845.77
Regional Research	599.89	154,751.00	149,857.88	5,493.01
McIntire-Stennis	14,444.33	17,565.00	24,330.94	7,678.39
Totals	$ 39,985.98	$ 615,954.00	$ 612,922.81	$ 43,017.17
GRAND TOTALS	$357,817.64	$1,645,477.93	$1,715,504.46	$287,791.11

Schedule B-6

Trust Funds
Statement of Receipts, Disbursements, Transfers and Balances

Fund	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
Miscellaneous Funds:						
Academic Theatre Program	$ 2,275.39	$ 6,000.00	$ 6,367.48	$ --	$ 7,405.12	$ 7,237.75
A.I.D.C. - 2340 (a)	--	--	--	--	--	--
A.I.D. afe - 62 (N) (a)	--	--	--	--	--	--
A.I.D. afe - 62 (N) Overhead (a)	--	--	--	--	--	--
Art Acquisition Fund	968.55	--	587.00	--	1,123.75	431.80
George Alderman Museum	282.76	--	--	--	--	282.76
American Cyanamid Fund	--	--	100.00	--	--	100.00
Anonymous Trust Fund No. 2	1,500.04	--	--	--	497.90	1,002.14
Anonymous Trust Fund No. 3	--	--	10,000.00	--	8,199.19	1,800.81
Anonymous Trust Fund No. 4	--	--	2,000.00	--	--	2,000.00
Nicolas Appert Chair of Food	--	--	15,000.00	--	4,999.80	10,000.20
Arts and SciencesEquipment Fund	129.40	--	23.00	152.40	--	--
Athletic Reserve Fund	26,618.56	--	1,202.95	--	--	27,821.51
Athletic Trust Fund	136,694.83	--	417,690.40	--	348,783.35	205,601.88
Boarding Halls Clearing Account	--	--	2,167,575.50	2,070,453.48	97,122.02	--
Boarding Halls Trust Fund	521,277.90	2,070,453.48	-139,307.60	--	1,895,607.86	556,815.92
Blood Typing - S.G. Fund	--	--	2,000.00	--	1,163.39	836.61
Budd Company	400.00	--	--	--	185.45	214.55
Marie Campbell Book Fund	500.00	--	--	--	500.00	--
Carnegie Fund - Edmund Burke	12,788.95	--	--	--	4,054.99	8,733.96
Centennial Fund	8.12	--	--	--	--	8.12
Chemical Engineering	1,644.97	--	4,150.40	--	3,103.42	2,691.95
Katherine A. Clarke Trust Fund	--	--	502.13	--	502.13	--
Class 1930 Library Books	250.00	--	--	--	--	250.00
Class 1957 Book Fund	2,342.07	--	--	--	--	2,342.07
Class 1958 Gift Fund	2,557.75	--	103.91	--	2,661.66	--
Class 1960 Book Fund	2,000.00	--	--	--	--	2,000.00
College of Arts and Sciences	32.73	152.40	4,401.17	--	4,437.86	148.44
Computer Trust Fund	7,101.13	50,000.00	23,997.54	--	74,597.24	6,501.43
Conservation Foundation of N.Y.(b)	--	--	--	--	--	--
Danforth Foundation Workahop Fund	19.27	--	--	19.27	--	--
Danforth Foundation Residence Fund	--	19.27	7,521.40	--	5,280.66	2,260.01
Department of Government Fund	870.28	27.56	2,049.05	--	614.70	2,332.19
Estate of Margaret Hamlin	1,021.41	--	--	--	1,021.41	--
Engineering Research Inst.-Overhead	--	--	1,313.53	--	52.83	1,260.70
Floriculture Fund	378.28	--	300.00	--	299.26	379.02
Flower Growers' Fund	13.39	--	400.00	--	155.30	258.09
Fordham Trust Fund	--	--	100.00	--	--	100.00
Ford Foundation - Driver, King	11,712.60	--	--	--	9,585.02	2,127.58
Ford Foundation - Library Fund	2,991.11	--	6,000.00	--	4,795.86	4,195.25
Ford Foundation - Professorships	25,000.50	--	--	--	7,999.88	17,000.62
Ford Foundation - Sociology	4,555.84	--	2,596.09	--	517.40	6,634.53
Ford Foundation - Working Fund	1,347.95	--	--	--	4.20	1,343.75
Foreign Student Advisors' Fund	213.21	--	--	--	9.48	203.73
General Electric - Pittsfield Graduate	333.94	238.79	19,678.32	--	16,679.56	3,571.49
General Electric - Pittsfield Undergraduate	238.79	--	--	238.79	--	--
German Department	34.40	--	--	--	--	34.40
Hokkaido - Mass. Fund	186.65	--	--	--	96.13	90.52
Home Economics Dept. Fund	2,541.92	61.50	--	--	185.98	2,417.44
Home Management	61.50	--	--	61.50	--	--
Horticulture Research Center	3,284.10	--	5,499.83	--	842.49	7,941.44
Human Ecology Fund (c)	--	--	--	--	--	--
Hotel & Restaurant Library Fund	--	--	1,000.00	--	125.29	874.71
Identification Card Fund	1,455.68	--	10,967.20	--	8,965.92	3,456.96
I.B.M. Research Associates	295.10	--	3,150.00	--	2,350.00	1,095.10
Library Fund	417.16	--	--	--	--	417.16
Maintenance of Academic Projects	--	--	--	--	--	--
Mass. Assembly Loan Payment Fund	--	--	5,630.40	--	5,630.40	
Mass. Food Serv. Educ. Council	2,800.92	--	--	--	110.17	2,690.75
Microbiology Trust Fund	1.61	--	--	--	1.61	--
Morrill Science Library Fund	125.00	--	--	--	--	125.00
Military Uniforms	1,178.09	--	--	1,178.09	--	--
Medical School Service Fund	--	--	700.00	--	--	700.00
National Distillers	--	--	100.00	--	--	100.00
N.D.E.A. Teachers Service Cancellation	228.38	--	--	--	--	228.38
New York Times Fund	27.56	--	--	27.56	--	--

Schedule B-6 (Continued)

Trust Funds
Statement of Receipts, Disbursements, Transfers and Balances

Fund	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
Miscellaneous Funds: (Cont.)						
N.S.F. Science Development Proposal	$ --	$ 1,760.00	$ --	$ --	$ 1,174.00	$ 586.00
Provost's Office Account	88.00	--	--	--	88.00	--
Placement Office Serv. Fd.	104.35	--	--	--	33.88	70.47
Population Council Grant D64022	2,750.00	--	--	--	2,750.00	--
President's Trust Fund	572.47	--	250.00	--	539.70	282.77
Regional Science Fair	50.00	--	--	--	--	50.00
R.O.T.C. Commutation Uniforms	370.51	--	14,864.66	300.00	14,551.95	383.22
Research Council Service Fd.	--	--	2,092.68	--	1,038.00	1,054.68
Restaurant and Hotel Management Fund	515.92	--	3,298.00	--	913.64	2,900.28
Rockefeller Foundation - GA H SS 6436	--	--	8,000.00	--	6,622.30	1,377.70
Rockefeller Foundation - 62133 - Allocation #63	1,791.03	--	--	--	1,791.03	--
Rockefeller Foundation - 62133 - Allocation #69	1,159.00	--	--	--	1,159.00	--
Romance Language Department	107.31	--	--	--	90.23	17.08
School of Business Admin. Service Fund	9,715.20	--	12,253.12	--	6,645.63	15,322.69
School of Education Service Fund	16.04	--	1,395.00	--	--	1,411.04
School of Engineering Service Fund	50.00	47.02	--	--	--	97.02
School of Engineering Equip.	966.63	--	107.84	--	509.00	565.47
School of Nursing Fund	610.00	--	--	--	150.00	460.00
Sperry and Hutchinson Lecture Fund	456.84	--	500.00	--	--	956.84
State Employees' Group Insurance - State's Share	6,662.33	--	15,713.91	--	16,217.43	6,158.81
Student Health Service	41,812.35	--	413,608.26	--	346,490.28	108,930.33
Student Union - Food Service	91,335.24	--	669,921.10	--	673,577.87	87,678.47
Student Union - General Fund	57,075.50	30,000.00	875,671.45	--	843,850.10	118,896.85
Student Union - R.S.O.	77,905.27	9,500.00	394,828.82	--	408,143.87	74,090.22
Student Union - Reserve	135,397.49	--	43,256.59	30,000.00	--	148,654.08
Student Union - Univ. Store	102,979.07	--	1,274,658.17	--	1,216,778.51	160,858.73
Summer Session - Recreation and Health Fee	569.02	--	--	--	566.80	2.22
Ray E. Torrey Fund	--	--	5.00	--	5.00	--
Tax Sheltered Annuities	6,531.13	--	35,635.62	--	32,496.62	9,670.13
Ruth J. Totman Service Fd.	951.67	--	20.00	--	22.50	949.17
Travel Advance Fd.-Revolving	--	10,000.00	--	--	10,000.00	--
Trust Funds Interest Account	95,341.93	12,427.71	112,554.04	59,684.00	28,446.81	132,192.87
Tangerine Bowl Fund	--	14,184.00	15,481.14	12,427.71	17,237.43	--
University Fund	4,411.52	5,000.00	1,250.00	--	4,465.09	6,196.43
U of M Medical School Library Fund	125.00	--	--	--	--	125.00
University Press Committee	16,092.57	39,850.00	6,974.56	--	33,677.96	29,239.17
Joseph Yokel Memorial Library Fund	200.00	--	--	--	--	200.00
West Virginia University	--	750.00	--	--	40.00	710.00
Totals	$1,437,421.18	$2,250,471.73	$6,485,739.66	$2,174,542.80	$6,190,341.31	$1,808,748.46

(a) Transferred to Federal Funds, Misc. $16,435.26
(b) Transferred to Research Grants $ 5,000.00
(c) Transferred to Scholarships and Fellowships $ 3,500.00

Schedule B-7

Agency Funds
Statement of Receipts, Disbursements, Transfers and Balances

Fund	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
Asia Foundation - Books	$ 16.62	$ --	$ --	--	$ 16.62	$ --
Carnegie Internship Program	14,051.84	--	--	--	86.40	13,965.44
Coop. School Center	--	--	4,829.75	--	1,357.28	3,472.47
Equipment Shortage - AF-ROTC	536.02	828.49	370.87	--	1,166.87	568.51
Equipment Shortage - ARMY ROTC	531.38	649.60	286.50	--	125.60	1,341.88
Federal Tax on Personal Telephone Calls	25.00	--	77.77	--	77.92	24.85
4-H Activities	2,850.49	--	18,170.00	--	14,780.31	6,240.18
Home Economics Scholarship Banquet	1.59	--	--	--	--	1.59
Educational Testing	--	--	1,122.00	--	444.00	678.00
Mass. Ed. Film Fund	54.91	--	920.00	--	--	974.91
Massachusetts Review	4,197.96	10,000.00	18,843.57	--	30,286.41	2,755.12
Mildred Pierpont Memorial Fund	185.00	--	--	--	--	185.00
Rodent Control Fund	6,107.29	--	44,921.25	--	42,120.53	8,908.01
Special Military Fund	318.42	--	64.85	--	344.11	39.16
Student Deposit Account	61,493.12	--	1,009,548.78	--	1,025,648.41	45,393.49
Student Health and Accident Insurance	-16.00	--	132,485.00	--	128,143.00	4,326.00
United States Savings Bond	4,877.16	--	96,311.74	--	95,983.68	5,205.22
Western Massachusetts Broadcasting Council, Inc.	4,599.21	--	13,407.17	--	13,562.30	4,444.08
Totals	$99,830.01	$11,478.09	$1,341,359.25	--	$1,354,143.44	$98,523.91

Schedule B-8

Special Gifts
Statement of Receipts, Disburaements, Transfers and Balances

Scholarships & Fellowships	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disburaements	Balance June 30, 1965
Trust Fund Federal Fellowships:						
N.I.H. Inst. Allowances (a)	$ 4,319.77	$ 7,805.97	$ ---	$ ---	$ 12,115.84	$ 9.90
N.I.H. GM-12064-01 (a)	5,186.92	17,567.81	11,866.00	15,245.24	19,375.49	---
N.I.H. GM-12265-01 (a)	7,664.22	19,484.37	22,242.00	23,646.78	25,743.81	---
N.I.H. MPM-17540-03 (a)	1,854.25	---	---	1,854.25	---	---
N.I.H. GM-19716-01 (a)	2,016.61	---	---	2,016.61	---	---
N.I.H. GM-20296-01 (a)	2,482.92	---	---	2,020.06	462.86	---
N.I.H. MH-20782-01 (a)	1,915.05	---	---	1,915.05	---	---
N.I.H. GM-24415-01	---	2,500.91	3,534.00	2,689.00	3,343.91	---
N.S.F. Fellowships	27,826.55	---	39,134.70	15,130.21	32,206.52	19,624.52
N.I.H. MH-23810-01	---	1,820.00	1,700.00	920.00	2,600.00	---
N.S.F. Fellowship Inst. Allow.	---	15,130.21	---	---	15,122.73	7.48
N.S.F. Faculty Educ. Allow.	---	---	5,000.00	---	---	5,000.00
1-F1-GM-28311-01	---	1,708.30	---	---	1,708.30	---
Nat'l. Defense Grad. Fund	1,308.50	4,540.00	70,000.00	28,390.00	45,323.50	2,135.00
N.I.H. A.I. 20811-01	---	95.90	---	---	95.90	---
Sub-Totals	$ 54,574.79	$ 70,653.47	$153,476.70	$ 93,827.20	$158,100.86	$ 26,776.90

(a) Transferred from N.I.H. and N.S.F. Research Grants $53,266.29

Trust Fund Miscellaneous Fellowships:						
Baltimore Bio. Laboratory	$ 362.50	$ ---	$ ---	$ ---	$ 362.50	$ ---
Ford Foundation - Cheng	---	---	14,326.00	---	11,184.76	3,141.24
General Tel. & Electronics	42.12	---	---	---	---	42.12
Joseph Hill Foundation (a)	3,069.50	---	3,500.00	---	2,104.60	4,464.90
Hood Dairy Foundation	1,597.88	640.00	3,821.00	640.00	3,822.72	1,596.16
Human Ecology Fund (b)	3,500.00	---	4,025.00	525.00	6,254.13	745.87
New England Bird Banding	300.00	---	---	---	300.00	---
Murray Seasongood Good Gov't.	300.00	---	---	---	300.00	---
Texaco Fellowship in Chem. (a)	3,302.00	---	---	---	2,659.48	642.52
Woodrow Wilson Nat'l.Fellowship	2,000.00	---	---	---	1,097.60	902.40
Diamond Alkali Fellowship	---	---	600.00	---	150.00	450.00
Microbiology-Pre-doctoral Fellowship	---	5,000.00	---	---	1,383.14	3,616.86
Ford Foundation - Singer	---	---	16,709.00	---	---	16,709.00
Sub-Totals	$ 14,474.00	$ 5,640.00	$ 42,981.00	$ 1,165.00	$ 29,618.93	$ 32,311.07

(a) Transferred from Research Grants $6,371.50

(b) Transferred from Trust Funds $3,500.00

Trust Fund Scholarships & Fellowships						
A.S.M.E. Scholarship	$ 200.00	$ ---	$ 200.00	$ ---	$ 200.00	$ 200.00
Anthony's Restaurant & Schol. Fd.	---	---	1,000.00	---	900.00	100.00
Band Scholarship Fund	100.00	---	365.00	---	---	465.00
Boston Stewards Club	---	---	250.00	---	250.00	---
Nathaniel I. Bowditch Speaking Contest	555.00	---	---	---	50.00	505.00
Richard Bradham Mem. Schol.	---	---	200.00	---	200.00	---
H. B. Cantor	100.00	---	---	---	100.00	---
Centennial Scholarship	300.00	---	---	---	200.00	100.00
Class of 1919	150.00	---	---	---	---	150.00
Combustion Engr. Scholarship	250.00	---	250.00	---	---	500.00
Lotta Crabtree	---	---	10,367.00	---	10,000.00	367.00
Engr. Alumni Scholarship	2,672.12	---	2,456.46	---	2,150.00	2,978.58
Farm Bureau (Hampshire County)	---	---	100.00	---	100.00	---
Florists & Gardeners Club (Western Mass.)	100.00	---	100.00	---	---	200.00

Schedule B-8 (Continued)

Special Gifts
Statement of Receipts, Disbursements, Transfers and Balances

Scholarships & Fellowships	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
Trust Fund Scholarships & Fellowships (continued)						
Mary Foley	$ 100.00	$ ---	$ ---	$ ---	$ ---	$ 100.00
French Government Fund	434.00	---	---	---	180.00	254.00
Harry L. Folsom Hoo Hoo Schol.	---	---	400.00	---	---	400.00
Graduate Education Schol.	200.00	---	---	---	200.00	---
Graduate Schol. & Loan Fund	243.66	---	---	---	---	243.66
Hood Scholarship	286.00	---	1,390.00	---	1,390.00	286.00
Industrial Engr. Schol.	---	---	235.44	---	100.00	135.44
Howard Johnson	500.00	---	1,500.00	---	1,500.00	500.00
H. F. Jones	50.00	---	---	---	---	50.00
Albert P. Madeira Schol.	---	---	25.00	---	25.00	---
McDonald Prize Fund	7.60	---	---	---	---	7.60
Miscellaneous Scholarships	4,658.50	---	2,416.50	---	4,100.00	2,975.00
New York Farmers	500.00	---	2,000.00	---	1,500.00	1,000.00
Fred L. Pigeon Student Aid	2,000.00	---	---	---	2,000.00	---
Ralston Purina	2,400.00	---	3,700.00	---	2,900.00	3,200.00
Restaurant & Hotel Schol.	---	---	1,350.00	---	125.00	1,225.00
Joseph C. Rich	200.00	---	100.00	---	100.00	200.00
Saga Scholarship	---	---	1,000.00	---	1,000.00	---
George Schneider Mem. Fund	---	---	1,000.00	---	1,000.00	---
Sears Roebuck Schol.	---	---	2,100.00	---	2,100.00	---
Springfield Garden Club	---	---	200.00	---	200.00	---
Ilene Sharon Saval	---	---	1,340.00	---	---	1,340.00
Sterling Surrey Scholarship	970.00	---	---	---	---	970.00
Stauffer Restaurant Corp.	---	---	800.00	---	800.00	---
Traffic Fines Schol. Fund	1,130.00	---	2,786.00	---	---	3,916.00
George TreadwellSchol.	100.00	---	100.00	---	100.00	100.00
University of Mass. Schol. Fund	100.00	---	---	---	---	100.00
University Scholarships	2,019.04	15,000.00	4,540.09	---	6,550.00	15,009.13
L. R. Wilson Award	24.50	---	---	---	2.25	22.25
Sub-Totals	$ 20,350.42	$ 15,000.00	$ 42,271.49	---	$ 40,022.25	$ 37,599.66
Total Scholarships & Fellowships	$ 89,399.21	$ 91,293.47	$238,729.19	$ 94,992.20	$227,742.04	$ 96,687.63
Research Grants - Industrial						
Abbott - MS Fund	$ ---	$ ---	$ 8,200.00	$ ---	$ 91.21	$ 8,108.79
Allied Chemical	4,394.47	---	8,000.00	1,600.00	3,615.62	7,178.85
Agric. Development Council	---	---	3,750.00	---	3,750.00	---
American Cancer Society	1,917.00	---	---	---	1,917.00	---
American Petroleum Inst. #155	1,261.82	---	---	---	530.36	731.46
Audubon Fund	---	---	5,549.47	---	4,721.70	827.77
Berkshire County	985.13	---	---	---	629.05	356.08
Boston Mkt. Garden Seed Imp.	2,153.20	---	---	---	605.68	1,547.52
Bourne Fund	2,278.62	---	1,034.25	---	1,739.18	1,573.69
Bureau of Gov't. Research	55.34	---	3,167.78	---	3,198.77	24.35
Cape Cod Fund	698.68	---	6,000.00	---	2,063.65	4,635.03
Carbonated Beverages	2.00	---	---	---	2.00	---
Carnation Fund	16.64	---	3,000.00	---	1,019.03	1,997.61
Chronic Resp. Disease	12,282.00	---	6,625.00	---	3,244.50	15,662.50
Chemstrand Res. Center	151.32	---	4,500.00	---	1,257.55	3,393.77
C.I.B.A. Pharmaceutical	825.82	---	---	---	760.95	64.87
Kimberly-Clark	7,018.41	---	---	---	5,819.44	1,198.97
Cocoa Fund	328.28	---	---	---	2.00	326.28
Commercial Filters	720.60	---	---	---	---	720.60
Conservation Foundation of N.Y. (a)	5,000.00	---	3,000.00	---	3,088.13	4,911.87
Consolidated Cigar Corp.	---	---	2,500.00	---	1,159.11	1,340.89
Coop. Fish - Proj. #3601-09-13	5,975.37	---	20,000.00	---	20,298.26	5,677.11
Corn Industries	5,995.30	---	---	---	3,491.65	2,503.65
Cottrell - Little	326.89	---	---	---	196.60	130.29
Cottrell - McGill	1,826.69	---	---	---	27.74	1,798.95
Cottrell - Stengle	181.40	---	---	---	---	181.40
Cottrell - Williams	723.46	---	---	---	7.00	716.46

Schedule B-8 (Continued)

Special Gifts
Statement of Receipts, Disbursements, Transfers and Balances

Research Grants - Industrial (Continued)	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
Cox Fund	$ 2,130.07	$ ---	$ 600.00	$ ---	$ 1,600.00	$ 1,130.07
Cranberry Disease	641.18	---	---	---	293.32	347.86
Dairy Adjustment	800.00	---	600.00	---	---	1,400.00
Eastern States	2,196.59	---	---	---	169.48	2,027.11
Engineering	892.09	---	---	---	---	892.09
Fabric Research	2.92	---	---	---	2.82	.10
Faculty Research Grants	---	101,298.55	---	54,522.64	46,775.91	---
Food Mart Fund	---	---	2,500.00	---	2,500.00	---
General Electric - Stein	8,455.89	---	---	---	3,723.94	4,731.95
General Tire & Rubber Co.	6,656.16	---	6,500.00	1,083.00	4,036.84	8,036.32
Glass Container	18,945.61	---	7,000.00	---	15,423.27	10,522.34
Gulf Oil Corp. Foundation	---	---	1,000.00	---	375.13	624.87
Hercules Powder	2,500.00	---	---	---	2,077.45	422.55
Joseph Hill Fund (b)	---	---	---	---	---	---
Hoffman-LaRoche - Feldman	48.18	---	---	---	---	48.18
Hoffman - LaRoche #2	1,425.44	---	---	---	1,361.25	64.19
Hoffman-LaRoche #3	---	---	3,000.00	---	607.60	2,392.40
Holyoke Water Power	---	---	5,600.00	---	5,118.13	481.87
I.A.I.M. Overhead	1,149.61	1,481.27	---	764.52	1,075.36	791.00
I.E.P. Overhead	1,363.73	4,375.83	---	---	3,163.08	2,576.48
Chas. F. Kettering Foundation	47.02	---	---	47.02	---	---
Irradiation D.L.B.	---	---	500.00	---	---	500.00
Lederle Fund	6,088.85	---	---	---	38.77	6,050.08
Lestoil Fund	---	---	1,100.00	---	203.62	896.38
Leptospiral Project - Suppliment	---	1,000.00	---	---	985.80	14.20
Leucosis Fund	312.07	---	5,000.00	---	310.12	5,001.95
Lobster Fund	57.11	---	400.00	---	417.58	39.53
Maint. of Academic Projects (a)	---	65,728.23	---	---	65,728.23	---
Mass. Nurserymen's Ass'n.	1,000.00	---	1,000.00	---	605.84	1,394.16
Merit Mfg. Co.	---	---	500.00	---	446.73	53.27
Mastitis W.H. Fund	---	---	950.00	---	---	950.00
Milk Solids Fund	5,907.81	---	8,060.00	---	7,979.68	5,988.13
Mobil Chemical Co.	3,084.44	---	7,500.00	1,500.00	2,767.68	6,316.76
Monsanto Chemical Co.	238.51	---	1,000.00	---	1,235.00	3.51
Natural Resources	687.83	---	304.71	---	979.34	13.20
N.E.Board of Higher Education	19.67	---	---	---	---	19.67
Norwich Fund	195.47	---	---	---	---	195.47
Ocean Spray Cranberry	7,922.89	---	5,000.00	---	153.73	12,769.16
P.R.F.-American Chemical Soc.	1,080.56	3,231.00	---	---	563.37	3,748.19
P.R.F.-500-A4	4,019.43	---	6,960.00	1,160.00	7,722.26	2,097.17
P.R.F.-575-A2	3,006.26	---	8,000.00	1,334.00	5,037.62	4,634.64
P.R.F.-598-A2	7,081.43	---	---	---	4,771.53	2,309.90
P.R.F.-682-A1	6.92	---	---	---	---	6.92
P.R.F.-973-A4	3,390.49	---	---	---	2,654.87	735.62
P.R.F.-1637-A1	5,313.72	---	7,175.00	1,196.00	6,626.89	4,665.83
P.R.F.-1793-D	3,170.39	---	1,100.00	---	3,730.28	540.11
P.R.F.-1946-A1,3	---	---	10,000.00	1,472.00	3,969.07	4,558.93
P.R.F.-2179-A1, 4	---	---	7,799.00	1,300.00	---	6,499.00
Pfizer Fund	6,234.44	---	---	---	762.49	5,471.95
Plax Corp.	2,996.86	---	10,000.00	1,666.00	5,083.29	6,247.57
P.R.I. Overhead	4,596.45	3,384.45	---	---	6,509.59	1,471.31
Population Council - #M-6432	1,123.13	---	---	---	1,115.15	7.98
Res. Service Fund - Agric.	2,962.67	---	100.00	---	545.97	2,516.70
Research Trust Fund (c)	103,943.63	567,366.24	1,920.58	599,873.68	20,527.15	52,829.62
Se-Te Development	1,045.33	---	3,000.00	495.50	2,947.25	602.58
Shawinigan - Chemistry	22.04	---	---	---	22.04	---
Salmonella G.H.S. Fund	---	---	3,000.00	---	235.73	2,764.27
Sylvania Trust Fund	---	---	3,900.00	---	3,479.57	420.43
Shawinigan Resins Corp.	1,000.00	---	---	---	---	1,000.00
Shell Chemical	721.27	---	1,000.00	---	366.32	1,354.95
Sire Evaluation	1,797.17	---	---	---	819.25	977.92
Stauffer Fund	493.52	---	---	---	361.07	132.45
Sterling Winthrop	285.23	---	---	---	284.62	.61
Texaco Fellowship in Chem. (b)	---	---	---	---	---	---
Turfgrass Fund	14.18	---	500.00	---	6.00	508.18

Schedule B-8 (Continued)

Special Gifts
Statement of Receipts, Disbursements, Transfers and Balances

Research Grants - Industrial (Continued)	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 196
Uramite Fund	$ 978.40	$ ---	$ ---	$ ---	$ 931.44	$ 46.96
Western Electric Fund	983.25	---	3,000.00	---	3,966.38	16.87
Wildlife Management Fund	479.99	---	1,000.00	---	995.01	484.98
Wise Potato Chip	2,440.53	---	5,000.00	---	5,262.74	2,177.79
Wirthmore Trust Fund	---	---	2,000.00	---	557.74	1,442.26
Sub-Totals	$287,074.87	$747,865.57	$208,895.79	$668,014.36	$323,246.57	$252,575.30

(a) Transferred from Miscellaneous Trust Funds $5,000.00
(b) Transferred to Scholarships and Fellowships $6,371.50

Federal Grants & Contracts - Miscellaneous						
A.I.D./afe-62(N) (a)	$ 9,140.38	$ ---	$ 96,803.94	$ 9,676.67	$ 76,668.54	$ 19,599.11
A.I.D./afe-62(N) Overhead(a)	4,439.46	9,676.67	---	---	---	14,116.13
A.I.D./afe-86(N) (a)	39,856.01	---	209,437.65	21,559.25	193,408.63	34,325.78
A.I.D./afe-86(N) Overhead	---	21,559.25	---	---	2,195.70	19,363.55
A.I.D./csd-399 (-2340)	2,855.42	460.00	6,506.00	---	1,184.40	8,637.02
U.S. Dept. of Agriculture:						
#A.R.S. 12-14-100-5319(33)	27.45	---	1,249.55	1,277.00	---	---
#A.R.S. 12-14-100-5414(45)	1,142.88	---	12,500.00	---	12,632.70	1,010.18
U.S.Air Force 19-628-4948	---	4,000.00	1,272.60	1,272.60	2,459.19	1,540.81
U.S.Air Force 19-628-2486	1,985.62	18,552.49	23,523.93	23,523.93	20,538.11	---
U.S.Air Force Office of Scientific Research:						
#168-63	16,738.78	---	---	---	16,579.82	158.96
#212-63	7,983.85	---	---	---	6,219.16	1,764.69
#212-65	---	---	5,150.00	850.00	2,450.74	1,849.26
#218-63	10,597.37	---	10,910.00	1,810.00	7,874.68	11,822.69
#404-63	144.77	5.53	---	---	150.30	---
#404-64	2,765.18	9.25	12,506.00	7,084.00	8,196.43	---
#777-65	---	---	23,610.00	3,938.00	12,618.50	7,053.50
U.S. Army Constract:						
#DA-19-129-AMC-386(N)	---	14,758.00	11,363.76	11,363.76	14,646.74	111.26
#DA-Ord-31-124-61-G64						
#DA-49-193-MD-2634	---	4,000.00	1,128.49	1,128.49	3,215.16	784.84
#DA-ARO-(D)-31-124-G469	6,551.36	---	14,040.00	2,340.00	10,668.10	7,583.26
#DA-ARO-(D)-31-124-G491	6,930.34	---	13,356.00	2,226.00	5,446.41	12,613.93
#DA-19-035-A1-3864	---	---	5,201.35	---	5,201.35	---
U.S. Navy Contract:						
#Nonr-3357-(01)	475.97	15,000.00	14,844.92	14,844.92	14,974.87	501.10
#Nonr-3357-(02)	1,193.28	6,000.00	8,170.87	8,170.87	6,476.85	716.43
#Nonr-3357-(03)	2,322.94	9,266.00	11,100.08	11,100.08	10,644.44	944.50
#Nonr-3357-(04)	1,009.32	3,350.00	7,217.91	7,217.91	3,607.70	751.62
#Nonr-3357-(05)	594.17	13,000.00	15,799.68	15,799.68	13,004.71	589.46
#Nonr-3357-(06)	---	14,000.00	7,464.88	7,464.88	13,109.67	890.33
#Nonr-3357-(07)	---	5,000.00	---	---	4,774.62	225.38
U.S. Office of Education:						
#OE-4-15-001	15,273.42	---	17,980.00	10,206.00	23,047.42	---
#OE-4-16-018	---	2,500.00	14,304.07	4,767.22	12,012.54	24.31
#OE-5-10-112	---	3,546.50	9,025.00	1,504.00	11,067.50	---
#OE-5-10-155	---	---	1,390.00	232.00	723.18	434.82
#OE-5-45-002	---	3,000.00	101,476.00	11,979.00	73,206.82	19,290.18
#OE-5-16-017	---	2,000.00	---	---	280.67	1,719.33
#PL-87-276	5,905.00	---	2,476.00	---	4,000.00	4,381.00
U.S. Office of Defense:						
#OS-63-125	1,649.01	5,000.00	---	---	5,327.33	1,321.68
#OS-63-179	5,443.19	---	---	3,766.73	1,676.46	---
#OS-63-179 (Overhead)	9,146.53	3,766.73	---	---	---	12,913.26
#OS-64-151	---	2,000.00	64,220.32	10,844.06	50,440.19	4,936.07
#OS-64-151 (Overhead)	---	8,844.06	---	---	---	8,844.06
U.S. Air Force 19-628-4383	---	4,000.00	---	---	3,389.21	610.79

Schedule B-8 (Continued)

Special Gifts
Statement of Receipts, Disbursements, Transfers and Balances

	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
Federal Grants & Contracts - Miscellaneous (Continued)						
U.S. Department of Interior:						
#14-16-008-632	$ 79.71	$ ---	$ ---	$ ---	$ ---	$ 79.71
#14-17-007-238G	---	---	7,000.00	---	5,291.47	1,708.53
#14-17-007-125G	2,891.35	---	4,968.00	500.00	3,999.96	3,359.39
#14-17-004-171	---	5,921.79	4,772.06	4,772.06	5,921.79	---
#14-16-0008-684	---	3,000.00	---	---	2,781.63	218.37
#14-17-007-276G	---	---	4,089.00	---	---	4,089.00
#14-17-007-277G	---	---	4,929.00	---	---	4,929.00
U.S. Department Economic Research:						
#12-17-0017-24	2,458.30	---	---	---	2,458.30	---
U.S. Atomic Energy Commission:						
N.S.E.-25-1-64	23,500.00	---	---	---	23,500.00	---
(30-1) 2736	37.45	---	---	37.45	---	---
(30-1) 3003	6,338.20	---	9,394.75	1,566.00	6,621.62	7,545.33
(30-1) 3229	317.09	396.25	9,277.20	1,546.20	8,444.34	---
(30-1) 3499	---	---	5,850.00	1,170.00	156.56	4,523.44
(30-1) 3461	---	4,000.00	39,582.90	11,916.40	18,376.65	13,289.85
(30-1) 3511	---	---	8,414.10	1,402.00	200.00	6,812.10
Dnet-10-65	---	---	825.00	---	---	825.00
Dept. Health, Education & Welfare:						
31-31-0790-46(PL-88-164)	---	---	17,400.00	---	8,899.80	8,500.20
National Institutes of Health:						
R.C. 461	68,563.00	---	47,320.00	---	68,563.00	47,320.00
R.C. 764	8,965.00	---	---	---	---	8,965.00
Peace Corps P.C.-(W)-150	---	---	6,933.72	6,933.72	---	---
Peace Corps P.C.-(W)-150 Overhead	18,787.04	5,367.72	---	---	---	24,154.76
Northeast Foreatry Service	401.70	---	800.77	---	1,137.26	65.21
Veterans Rehabilitation:						
442-T64-N.I.H.	16,026.44	---	---	1,101.08	14,925.36	---
442-T65	---	1,101.08	22,750.92	1,112.00	6,450.00	16,290.00
Red Pine Scale	---	---	2,500.00	---	2,500.00	---
College Work Study	---	9,517.00	1,057.44	---	4,408.66	6,165.78
N61-339-1303	---	---	2,819.41	2,819.41	---	---
Sub-Totals	$302,644.19	$202,598.32	$924,713.27	$230,823.37	$838,764.64	$360,367.77
(a) Transferred from Miscellaneous Funds $16,435.26						
Research & Training Grants						
National Institutes of Health:						
M.H. 00336-04	$ 5,616.84	$ 2,047.83	$ ---	$ 4,138.18	$ 3,526.49	$ ---
H.D. 00336-05	---	5,636.13	2,625.00	2,077.42	6,183.71	---
H.D. 00745-01	6,000.00	8,025.62	2,160.00	2,710.44	13,475.18	---
H.D. 00745-02	---	487.39	---	81.23	406.16	---
H.D. 00898-05	853.06	2,567.22	---	3,420.28	---	---
H.D. 00898-06	---	11,885.58	7,373.00	7,190.84	12,067.74	---
H.D. 00898-07	---	1,742.38	---	290.40	1,451.98	---
H.D. 00955-01	747.48	1,073.00	---	1,816.28	4.20	---
H.D. 00955-02	---	6,221.21	3,327.00	4,303.43	5,244.78	---
H.D. 00955-03	---	1,043.69	---	173.95	869.74	---
M.H. 01061-08	7,320.40	3,552.49	---	5,311.23	5,561.66	---
M.H. 01061-09	---	12,613.80	5,313.00	5,622.44	12,304.36	---
H.D. 1216-02	---	3,033.24	1,740.00	2,186.02	2,587.22	---
M.H. 01293-08	33,216.42	7,757.64	---	8,857.83	34,116.23	---
M.H. 01293-09	---	32,671.69	11,671.00	9,071.53	35,271.16	---
M.H. 03803-03	138.74	27.75	---	166.49	---	---
M.H. 03803-04	2,419.37	7,045.43	3,737.00	3,038.79	10,163.01	---
M.H. 03803-05	---	1,049.75	---	174.96	874.79	---
M.H. 4201-04 & 0451	---	4,895.61	11,372.00	8,171.11	8,096.50	---

Schedule B-8 (Continued)

Special Gifts
Statement of Receipts, Disbursements, Transfers and Balances

	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
Research & Training Grants (Continued)						
National Institutes of Health:						
M.H. 4201-05	$ ---	$ 9,217.72	$ ---	$ 1,536.28	$ 7,681.44	$ ---
M.H. 06244-09	10,031.00	5,086.35	---	12,130.03	2,987.32	---
M.H. 06244-10	---	58,767.66	40,861.00	25,759.03	73,869.63	---
M.H. 06400-08	3,320.75	1,849.45	---	5,090.30	79.90	---
M.H. 06400-09	---	23,921.36	16,046.00	15,909.12	24,058.24	---
M.H. 07178-02	6,235.33	2,629.99	7,060.00	9,817.13	6,108.19	---
M.H. 08755-01	214.89	700.00	---	750.80	164.09	---
M.H. 08041-01	12,115.80	1,473.03	---	13,559.87	28.96	---
M.H. 10794-01	---	1,508.39	---	251.40	1,256.99	---
M.H. 11044-01-A1	---	271.58	---	45.26	226.32	---
P.H. EF-0011-03	6,166.97	2,199.67	---	5,535.78	2,830.86	---
C.C. 00049-01	1,776.30	877.97	---	1,920.17	734.10	---
C.C. 00049-02	---	5,008.06	1,650.00	1,509.61	5,148.45	---
E.F. 00099-06	1,485.00	5,439.47	6,930.00	6,849.97	7,004.50	---
E.F. 00099-07	---	2,990.58	---	498.43	2,492.15	---
E.F. 00100-02	4,857.72	---	---	4,857.72	---	---
E.F. 00100-03	5,344.55	14,967.84	5,880.00	11,445.22	14,747.17	---
E.F. 00100-04	---	8,706.59	---	1,451.10	7,255.49	---
E.F. 00121-05	7,976.11	1,590.35	---	7,365.65	2,200.81	---
O.H. 00140-02	2,680.94	8,102.89	18,000.00	15,170.59	13,613.24	---
O.H. 00140-03	---	20,252.15	---	3,375.35	16,876.80	---
A.I. 00226-02	5,036.55	924.03	---	3,095.97	2,864.61	---
A.I. 00226-03	---	19,550.09	21,359.00	18,924.17	21,984.92	---
E.F. 00317-01	11,064.20	4,396.18	4,313.00	11,437.92	8,335.46	---
E.F. 00317-02	---	6,726.43	3,080.00	3,438.18	6,368.25	---
W.P. 00450-01	2,230.33	3,590.70	6,224.00	7,826.67	4,218.36	---
E. 00562-07	79.89	---	---	79.89	---	---
E.F. 00567-01	5,885.63	3,532.67	7,964.00	8,890.01	8,492.29	---
E.F. 00567-02	---	6,373.07	---	1,062.18	5,310.89	---
E.F. 00656-01	---	24,175.43	6,221.00	12,610.28	17,786.15	---
E.F. 00602-01	---	2,324.98	---	387.49	1,937.49	---
E.F. 00696-01	---	4,190.08	---	698.35	3,491.73	---
A.I. 00742-09	306.62	5,410.43	---	5,602.01	115.04	---
A.I. 00742-10	10,234.21	21,858.40	10,073.00	13,000.48	29,165.13	---
A.I. 00742-11	---	2,725.48	---	454.25	2,271.23	---
A.M. 01266-08	5,510.56	2,472.60	---	3,113.15	4,870.01	---
A.M. 01266-09	---	7,894.33	3,509.00	3,284.37	8,118.96	---
A.I. 01442-09	5,687.65	2,726.56	2,807.04	5,371.00	5,850.25	---
N.B. 03675-03	1,548.52	2,393.14	6,322.00	5,815.09	4,448.57	---
N.B. 03675-04	---	3,030.70	---	505.11	2,525.59	---
N.B. 03827-02	1,472.64	294.93	---	1,767.57	---	---
N.B. 03827-03	---	7,727.00	4,473.00	4,107.92	8,092.08	---
C.A. 04052-06	1,113.34	645.25	---	1,087.88	670.71	---
C.A. 04052-07	---	2,552.48	1,098.00	895.26	2,755.22	---
A.I. 04291-03	8,199.58	6,248.75	7,710.00	9,535.63	12,622.70	---
A.I. 04291-04	---	14,102.82	---	2,350.46	11,752.36	---
A.I. 04953-02	35,988.24	6,365.51	---	27,266.00	15,087.75	---
A.I. 04953-03	---	13,266.46	---	2,097.29	11,169.17	---
A.I. 05440-01	5,386.01	2,010.95	---	3,484.42	3,912.54	---
A.I. 05440-02	---	4,088.26	---	681.38	3,406.88	---
C.A. 05478-03	3,972.49	4,500.72	6,300.00	5,852.22	8,920.99	---
G.M. 05921-06	3,696.47	3,697.41	---	3,769.21	3,624.67	---
G.M. 05921-07	---	22,100.10	10,688.00	10,119.36	22,668.74	---
A.I. 06153-01	5,083.66	4,472.67	8,312.00	8,393.18	9,475.15	---
A.I. 06153-02	---	1,375.49	---	229.25	1,146.24	---
A.I. 06210-01	---	5,130.64	2,259.00	2,450.59	4,939.05	---
A.I. 06294-01	---	6,641.70	2,806.00	3,280.02	6,167.68	---
G.M. 06377-05	1,164.76	1,492.81	---	2,408.26	249.31	---
G.M. 06377-06	577.50	9,649.60	7,934.00	7,402.94	10,758.16	---
G.M. 06377-07	---	2,511.31	---	418.55	2,092.76	---
C.A. 06384-03	---	7,301.93	6,390.00	6,323.64	7,368.29	---
A.M. 06430-02	4,116.55	1,839.84	---	1,649.95	4,306.44	---
C.A. 06620-02	5,014.65	2,376.89	---	3,611.64	3,779.90	---
C.A. 06620-03	---	7,384.55	3,507.00	2,829.02	8,062.53	---
C.A. 07434-02	15,377.29	11,836.50	4,076.00	12,782.76	18,507.03	---
A.M. 07701-01	2,073.08	1,289.17	1,800.00	1,762.94	3,399.31	---
A.M. 08071-01	4,966.78	4,543.91	3,630.00	6,490.10	6,650.59	---

Schedule B-8 (Continued)

Special Gifts
Statement of Receipts, Disbursements, Transfers and Balances

	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
Research & Training Grants (Continued)						
National Institutes of Health						
G.M. 08776-03	$ 4,286.53	$ 4,458.80	$ ---	$ 4,540.15	$ 4,205.18	$ ---
G.M. 08776-04	---	19,263.15	8,548.00	9,284.91	18,526.24	---
R.G. 09706-02	8,044.30	4,287.64	---	5,812.81	6,519.13	---
G.M. 09706-03	---	2,800.87	3,426.00	3,613.01	2,613.86	---
G.M. 11071-01	1,704.03	1,430.00	---	3,100.61	33.42	---
G.M. 11071-02	1,132.52	25,779.42	6,420.00	6,818.57	26,513.37	---
G.M. 11071-03	---	2,575.47	---	429.25	2,146.22	---
N.I.H. Cash Receipts	---	405,262.00	243,353.19	647,866.54	260.28	488.37
G.M. 12284-01	---	1,022.74	---	170.45	852.29	---
G.M. 19716-01 (a)	---					
M.H. 20782-01 (a)	---					
N.I.H. Institutional Allowances (a)	---					
N.I.H. G.M. 12064-01 (a)	---					
G.M. 12265-01 (a)	---					
M.P.M. 17540-03 (a)	---					
G.M. 19716-01 (a)	---					
G.M. 20296-01 (a)	---					
G.M. 20782-01 (a)	---					
G.M. 12064-02	---	1,344.70	---	224.12	1,120.58	---
A.I. 06735-01	---	1,120.68	---	186.78	933.90	---
Sub-Totals	$281,472.25	$1,038,026.97	$550,347.23	1,134,322.87	$735,035.21	$ 488.37

(a) Transferred to Scholarships and Fellowships $25,439.74

National Science Foundation						
Cash Receipts	$407,725.94	$ 49,087.24	$644,215.00	$968,668.78	$ ---	$132,359.40
G.A.-21	---	145.49	---	38.66	106.83	---
G.B.-61	---	3,417.23	---	569.57	2,847.66	---
G.P.-182	---	8,011.69	---	1,335.27	6,676.42	---
G.B.-185	---	6,380.63	---	1,063.43	5,317.20	---
G.B.-314	---	5,853.85	---	992.30	4,861.55	---
G.E.-340	---	564.01	---	564.01	---	---
G.S.-386	---	12,663.51	---	2,110.59	10,552.92	---
G.P.-504	---	10,230.64	---	1,705.44	8,525.20	---
G.B.-740	---	224.22	---	---	224.22	---
G.B.-1062	---	14,178.57	---	2,835.70	11,342.87	---
G.B.-1151	---	9,018.65	---	1,807.33	7,211.32	---
G.B.-1242	---	7,628.98	---	1,525.79	6,103.19	---
G.B.-1270	---	6,762.17	---	1,352.43	5,409.74	---
G.E.-1394	---	7,253.00	---	---	7,253.00	---
G.P.-1693	---	23,304.68	---	4,660.95	18,643.73	---
G.B.-1926	---	6,855.68	---	1,142.63	5,713.05	---
G.E.-2602	---	12,740.23	---	2,123.36	10,616.87	---
G.B.-2743	---	4,309.92	---	718.32	3,591.60	---
G.E.-2930	---	4,849.99	---	1,030.59	3,819.40	---
G.P.-2936	---	14,091.25	---	2,116.78	11,974.47	---
G.E.-3070	---	4,586.93	---	338.41	4,248.52	---
G.B.-3308	---	38.98	---	6.50	32.48	---
G.P.-3337	---	8,436.11	---	1,483.51	6,952.60	---
G.B.-3334	---	86.87	---	14.48	72.39	---
G.P.-3469	---	2,819.39	---	469.89	2,349.50	---
G.B.-3493	---	1,306.78	---	217.80	1,088.98	---
G.P.-3805	---	1,858.78	---	309.80	1,548.98	---
G.B.-3864	---	156.00	---	26.00	130.00	---
G.P.-3985	---	3,338.86	---	556.47	2,782.39	---
G.B.-3615	---	132.56	---	22.09	110.47	---
S.E.-4240	---	7,002.87	---	656.37	6,346.50	---
G.P.-4507	---	409.63	---	68.27	341.36	---

Schedule B-8 (Continued)

Special Gifts
Statement of Receipts, Disbursements, Transfers and Balances

	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disbursements	Balance June 30, 1965
National Science Foundation (Continued)						
G.E.-4766	$ ---	$ 15,499.78	$ ---	$ ---	$ 15,499.78	$ ---
G.E.-4837	---	10,878.73	---	---	10,878.73	---
G.E.-5233	---	9,684.60	---	45.33	9,639.27	---
G.E.-5590	---	683.40	---	---	683.40	---
G.E.-6306	---	1,433.54	---	---	1,433.54	---
G.E.-7546	---	556.17	---	---	556.17	---
G.-17998	---	2,857.10	---	476.18	2,380.92	---
G.-18632	---	6,166.19	---	4,794.57	1,371.62	---
G.-19506	---	12,052.32	---	2,008.73	10,043.59	---
G.-19534	---	2,494.76	---	415.79	2,078.97	---
G.-19945	---	5,465.82	---	910.95	4,554.87	---
G.-21548	---	152.24	---	19.87	132.37	---
G.-21593	---	1,569.05	---	1,202.24	366.81	---
G.-21640	---	510.11	---	510.11	---	---
G.-22764	---	10,512.88	---	2,502.61	8,010.27	---
G.-23321	---	10,030.72	---	1,671.79	8,358.93	---
G.-23542	---	7,251.76	---	---	7,251.76	---
G.-23783	---	4,220.24	---	703.37	3,516.87	---
G.U.-115	---	239,825.00	---	---	239,825.00	---
G.U.-284	16,561.24	14,093.44	---	16,561.24	14,093.44	---
G.U.-614	---	265,900.00	---	---	265,900.00	---
G.U.-818	32,526.00	32,907.44	---	32,526.00	32,907.44	---
G.U.-1100	---	127,375.00	---	---	127,375.00	---
Fellowships (a)	---	---	---	---	---	---
G.B.-3516	---	1,772.83	---	295.47	1,477.36	---
G.P.-4283	---	2,026.34	---	337.72	1,688.62	---
G.P.-4330	---	1,564.96	---	260.82	1,304.14	---
G.P.-4476	---	1,446.46	---	241.08	1,205.38	---
G.B.-3591	---	360.68	---	60.11	300.57	---
Sub-Totals	$ 456,813.18	$1,027,036.95	$ 644,215.00	$1,066,075.50	$ 929,630.23	$ 132,359.40
(a) Transferred to Scholarships and Fellowships $27,826.55						
Total - Special Gifts	$1,417,403.70*	$3,106,821.28	$2,566,900.48	$3,194,228.30	$3,054,418.69	$842,478.47
Total - Scholarships and Fellowships	$ 89,399.21	$ 91,293.47	$ 238,729.19	$ 94,992.20	$ 227,742.04	$ 96,687.63
Total - Industrial Grants	287,074.87	747,865.57	208,895.79	668,014.36	323,246.57	252,575.30
Total - Federal Grants	1,040,929.62	2,267,662.24	2,119,275.50	2,431,221.74	2,503,430.08	493,215.54
Totals	$1,417,403.70*	$3,106,821.28	$2,566,900.48	$3,194,228.30	$3,054,418.69	$842,478.47

* Adjusted July 1, 1964 balances. See detail of accounts.

Schedule B-9

Special and Capital Outlay Appropriations

Name & Account No.	Total Appropriations	Expenditures Previous Years	Expenditures Current Year	Reverted to State Treasurer	Balance of Approp. June 30, 1965
8262-12 Land Purchase	$ 371,000.00	$ 309,915.99	$ 27,065.17	--	$ 34,018.84
8063-19 Acquisition of Property	300,500.00	296,750.00	--	--	3,750.00
8363-07 Repairs and Improvements	50,000.00	34,786.05	14,722.00	491.95*	--
8363-08 Improvements to Roads and Sidewalks	100,000.00	38,046.87	61,596.48	354.55* 2.10	--
8363-10 Administrative & Maint. Equip.	60,000.00	59,960.22	--	33.78* 6.00	--
8363-11 Equipment - Classroom & Lab.	150,000.00	148,765.96	1,125.00	58.04* 51.00	--
8364-22 Repairs & Improvements	74,500.00	163.26	42,567.23	12.96	31,756.55
8364-23 Administrative & Maint. Equip.	60,000.00	52,549.41	7,449.30	1.29	--
8364-24 Classroom & Lab. Equipment	190,000.00	118,907.16	70,858.77	12.27	221.80
8364-25 Library Books	100,000.00	98,952.06	1,043.94	4.00	--
8364-27 Repairs & Improvements to Dorms	300,000.00	147,322.91	91,953.16	1,959.12	58,764.81
8064-30 Acquisition of Certain Land	300,000.00	57,190.00	173,210.00	--	69,600.00
8265-17 Repairs & Renewals	278,000.00	--	49,967.25	--	228,032.75
8265-18 Repairs, Improvements, etc., Dorms.	250,000.00	--	9,399.64	--	240,600.36
8265-19 Administrative & Maint. Equip.	75,000.00	--	51,425.16	--	23,574.84
8265-20 Classroom & Lab. Equipment	225,000.00	--	171,542.98	--	53,457.02
8265-21 Scientific, Technological, Educational and Other Reference Material for University Library	200,000.00	--	199,882.46	--	117.54
8065-35 Procurement & Installation of Academic & Operational Equip. for School of Education and a Computer	1,000,000.00	--	643,863.69	--	356,136.31
8065-28 Plans for Roads, Sidewalks, Parking Areas, etc., and Construction of First Phase	1,000,000.00	--	17,224.76	--	982,775.24
1350-38 Medical School	200,000.00	33,598.07	74,278.96	--	92,122.97
1350-39 University of Mass. - Boston	1,700,000.00	--	114,466.21	--	1,585,533.79
Totals	$6,984,000.00	$1,396,907.96	$1,823,642.16	$2,987.06	$3,760,462.82

* $938.32 reverted to State Treasurer Previous Year.
$2,048.74 reverted to State Treasurer Current Year.

Schedule B-10

U of M Trustee for
University of Massachusetts Building Authority
Statement of Receipts, Disbursements, Transfers and Balances

	Balance July 1, 1964	Transfers In	Receipts	Transfers Out	Disburse-ments	Balance June 30, 1965
FIRST PROJECT (Brett and Gorman Dormitories)						
Revenue Account	$79,233.28	$ --	$213,697.32	$138,157.71	$154,772.89	$ --
Maintenance and Operating	6,180.94	138,157.71	--	--	67,839.48	76,499.17
Totals	$85,414.22	$138,157.71	$213,697.32	$138,157.71	$222,612.37	$76,499.17
SECOND PROJECT (Dickinson, Field, Grayson and Webster Dormitories)						
Revenue Account	--	--	$473,042.11	$208,566.65	$264,475.46	$ --
Maintenance and Operating	--	208,566.65	--	--	79,790.05	128,776.60
Totals	--	$208,566.65	$473,042.11	$208,566.65	$344,265.51	$128,766.60
THIRD PROJECT (Dining Commons						
Revenue Account	--	--	$ 97,122.02	--	$ 97,122.02	--
Totals	--	--	$ 97,122.02	--	$ 97,122.02	
GRAND TOTALS	$85,414.22	$346,724.36	$783,861.45	$346,724.36	$663,999.90	$205,275.77

Schedule C

Analysis of General Maintenance Appropriation
by Subsidiary Accounts

Code No.	Subsidiary Accounts	Appropriation	Available for Expenditures	Total Exp. and Encumbrances	Balance of Approp. June 30, 1965
01	Salaries, Perm. Positions	$10,769,000.00	$10,769,000.00	$10,765,134.38	$ 3,865.62
02	Salaries, Other	1,718,600.00	1,718,600.00	1,685,578.01	33,021.99
03	Services, Non-Employees	1,578,200.00	1,578,200.00	1,577,901.64	298.36
04	Food for Persons	2,500.00	2,500.00	2,426.75	73.25
05	Clothing	4,000.00	4,000.00	3,918.10	81.90
06	Housekeeping Sup. & Exp.	65,000.00	65,000.00	64,983.20	16.80
07	Lab., Med. & Gen. Care	7,000.00	7,000.00	6,996.01	3.99
08	Heat & Other Plant Op.	705,000.00	705,000.00	704,996.53	3.47
09	Farm & Grounds	115,000.00	115,000.00	114,975.77	24.23
10	Travel & Auto. Expenses	119,100.00	119,100.00	119,091.82	8.18
11	Advertising & Printing	80,000.00	80,000.00	79,999.41	.59
12	Repairs, Alterations & Add.	285,000.00	285,000.00	284,968.30	31.70
13	Special Supplies & Exp.	449,400.00	449,400.00	449,195.01	204.99
14	Office & Admin. Exp.	228,400.00	228,400.00	226,613.96	1,786.04
15	Equipment	107,800.00	107,800.00	107,623.97	176.03
16	Rentals	843,000.00	843,000.00	842,999.39	.61
	Totals	$17,077,000.00	$17,077,000.00	$17,037,402.25	$ 39,597.75 *
	Other Maintenance:				
3304-44	Inland Fish & Game	$ 9,100.00	$ 9,100.00	$ 9,060.21	$ 39.79 *
1350-21	Research with Federal Grants	108,502.16	76,529.50	15,073.18	93,428.98 **
1350-96013	For Certain Scholarships	396,400.00	396,400.00	394,154.27	2,245.73 *
1350-35-14	Entertainment of Distinguished Visitors	2,000.00	2,000.00	2,000.00	---
1350-36-16	Rental Fee - President's House	1,200.00	1,200.00	1,200.00	---
1350-70-03	Senior Internship	35,000.00	35,000.00	21,395.45	13,604.55 *

* Balance reverted to State Treasurer

** $93,428.98 carried forward to fiscal year 1965

Schedule D

Summary of State General Maintenance
and Federal Appropriations Expenditures
by Budgetary Divisions

	State	Federal	Total	% of Total
Administration	$ 1,181,572.74	$ ---	$ 1,181,572.74	6.3
Instruction	10,410,678.25	454,610.68	10,865,288.93	57.9
Extension Service	617,920.26	647,970.97	1,265,891.23	6.8
Experiment Station	1,118,733.65	612,922.81	1,731,656.46	9.2
Control Services	419,131.27	---	419,131.27	2.2
Operation of Plant	3,289,366.08	---	3,289,366.08	17.6
	$17,037,402.25	$1,715,504.46	$18,752,906.71	100.0

Schedule E

State General Maintenance Appropriation

Comparative Statement of Expenditures
by Budgetary Divisions

Division	1963 Amounts	1963 % of Total	1964 Amounts	1964 % of Total	1965 Amounts	1965 % of Total
Administration	$ 785,445.54	6.6	$ 926,420.90	6.4	$ 1,181,572.74	6.9
Instruction	6,531,370.93	54.8	8,433,085.47	58.1	10,410,678.25	61.1
Extension Service	517,900.54	4.3	627,007.57	4.3	617,920.26	3.6
Experiment Station	848,373.05	7.1	1,081,948.96	7.5	1,118,733.65	6.6
Control Services	388,026.39	3.3	386,231.85	2.7	419,131.27	2.5
Operation of Plant	2,850,924.07	23.9	3,051,477.98	21.0	3,289,366.08	19.3
Totals	$11,922,040.52	100.0	$14,506,172.73	100.0	$17,037,402.25	100.0

By Subsidiary Accounts

Code No.		1963	1964	1964
01	Salaries	$ 7,853,700.24	$ 9,422,602.09	$10,765,134.38
02	Salaries, Other	967,420.57	1,313,985.97	1,685,578.01
03	Services, Non-Employees	701,888.94	1,072,463.16	1,577,901.64
04	Food	2,399.07	1,475.00	2,426.75
05	Clothing	989.44	- 2,000.00	3,918.10
06	Housekeeping Supplies and Expenses	49,969.61	50,993.82	64,983.20
07	Laboratory, Medical and General Care	4,498.07	5,985.42	6,996.01
08	Heat & Other Plant Operations	615,999.95	684,729.61	704,996.53
09	Farm & Grounds	74,999.82	84,993.25	114,975.77
10	Travel & Automotive Expenses	83,000.00	98,500.00	119,091.82
11	Advertising & Printing	54,998.06	66,999.48	79,999.41
12	Repairs, Alterations & Additions	243,999.87	274,959.65	284,968.30
13	Special Supplies & Expenses	291,462.43	367,990.62	449,195.01
14	Office & Administrative Expenses	168,336.45	218,010.35	226,613.96
15	Equipment	---	1,857.55	107,623.97
16	Rentals	807,000.00	819,962.76	842,999.39
18	Special Outlay	1,378.00	18,664.00	---
	Totals	$11,922,040.52	$14,506,172.73	$17,037,402.25

Schedule F

State General Maintenance Appropriation

Summary of Expenditures by Budgetary Divisions and Subsidiary Accounts

Code No.		Administration	Instruction	Extension	Exp. Station	Control Services	Operation of Plant	Total
01	Salaries, Perm.	$ 610,031.25	$ 7,462,153.15	$476,280.87	$ 795,082.23	$339,762.81	$1,081,824.07	$10,765,134.38
02	Salaries, Other	300,528.12	653,812.15	128,185.95	185,253.41	36,334.85	381,463.53	1,685,578.01
03	Services, Non-Emp.	63,943.14	1,429,644.77	1,229.70	29,165.95	17,040.26	36,877.82	1,577,901.64
04	Food	---	2,426.75	---	---	---	---	2,426.75
05	Clothing	3,356.93	23.39	---	523.57	---	14.21	3,918.10
06	Housekeeping Supp.	---	15,698.17	---	600.00	---	48,685.03	64,983.20
07	Lab., Med. & Gen. Care	---	6,996.01	---	---	---	---	6,996.01
08	Heat & Other	---	6.00	---	12.50	---	704,978.03	704,996.53
09	Farm & Grounds	---	48,928.02	108.96	26,784.30	680.84	38,473.65	114,975.77
10	Travel & Auto. Exp.	8,728.19	70,875.13	5,176.14	12,145.10	11,870.07	10,297.19	119,091.82
11	Advertising & Prtg.	44,632.43	28,968.04	495.00	5,597.48	245.74	60.72	79,999.41
12	Repr., Alt. & Add.	4,683.68	56,927.02	310.85	17,322.38	596.49	205,127.88	284,968.30
13	Special Supp. & Exp.	28,199.75	396,671.64	573.15	13,019.61	10,730.86	---	449,195.01
14	Office & Admin. Exp.	34,131.53	156,290.82	5,559.64	9,806.88	1,869.35	18,955.74	226,613.96
15	Equipment	1,144.24	35,448.18	---	14,193.98	---	56,837.57	107,623.97
16	Rentals	82,193.48	45,809.01	---	9,226.26	---	705,770.64	842,999.39
	Totals	$1,181,572.74	$10,410,678.25	$617,920.26	$1,118,733.65	$419,131.27	$3,289,366.08	$17,037,402.25

Schedule G

1965 Fiscal Year Expenditure Report
By Budget Divisions

Dept. Code		State Funds Salaries and Wages	State Funds Other Expenditures	Other Funds Salaries and Wages*	Net Total
A	**Executive Order**				
A 11	Trustees	$ ---	$ 2,640.85	$ ---	$ 2,640.85
A 12	President's Office	62,413.70	14,671.17	1,479.95	78,564.82
A 13	Secretary's Office	31,786.05	2,040.35	---	33,826.40
A 14	Development Office	12,419.55	842.60	---	13,262.15
A 15	Communications Office	94,753.42	46,673.13	1,063.22	142,489.77
A 17	Institutional Studies	19,946.25	1,289.38	1,302.25	22,537.88
A 18	Photographic Supplies	---	2,131.13	183.00	2,314.13
	Totals	221,318.97	70,288.61	4,028.42	295,636.00
B	**Business & Financial Mgt.**				
B 11	Bus. & Financial Mgt.	385,590.39	107,925.20	15,792.49	509,308.08
B 12	Business Office	123,014.76	11,471.01	411.25	134,897.02
B 13	Campus Planning & Engr.	85,862.60	4,827.70	31,118.39	121,808.69
B 14	Campus Security	117,825.32	6,282.42	93.74	124,201.48
B 16	Duplicating Service	26,498.71	5,776.97	---	32,275.68
B 17	Central Mailing	14,391.86	504.99	---	14,896.85
	Totals	753,183.64	136,788.29	47,415.87	937,387.80
C 11	U.Mass./Boston	---	72.00	38,185.16	38,257.16
D 11	Nantucket Research	4,384.00	859.68	---	5,243.68
E	**Provost's Office**				
E 11	Provost	95,204.34	14,661.48	3,755.91	113,621.73
E 12	Clearing Account	---	---	211.20	211.20
E 13	4 College Program	5,348.09	3,040.75	---	8,388.84
E 15	Computer Center	3,393.77	97.30	4,473.80	7,964.87
	Totals	103,946.20	17,799.53	8,440.91	130,186.64
F	**Student Personnel**				
F 21	Student Personnel	35,298.06	5,867.34	2,773.87	43,939.27
F 22	Dean of Men	118,639.28	2,345.56	2,164.95	123,149.79
F 23	Dean of Women	138,924.22	3,351.16	642.96	142,918.34
F 24	Placement Office	65,811.17	5,512.12	1,131.91	72,455.20
F 26	Guidance Service	59,506.90	11,324.33	1,801.50	72,632.73
F 27	Dormitory Supervision	38,354.50	1,130.75	395.25	39,880.50
F 28	Testing & Counseling	26,897.25	10.25	380.00	27,287.50
F 29	Housing Office	50,934.01	7,511.25	1,897.01	60,342.27
F 30	Admissions & Registration	121,262.61	21,964.06	3,410.80	146,637.47
	Totals	655,628.00	59,016.82	14,598.25	729,243.07

Schedule G (Continued)

1965 Fiscal Year Expenditure Report
By Budget Divisions

Dept. Code		State Funds Salaries and Wages	State Funds Other Expenditures	Other Funds Salaries and Wages*	Net Total
G 11	Library	$462,734.28	$163,957.78	$ 3,665.50	$630,357.56
H 11	Audio Visual Center	37,896.27	10,948.76	6,012.74	54,857.77
I 21	Medical School	---	---	38,259.11	38,259.11
J	College of Arts & Sciences				
J 11	Dean's Office	92,228.78	6,075.67	12,891.52	111,195.97
J 12	Economics	124,327.54	1,956.00	320.00	126,603.54
J 14	English	536,193.60	6,556.17	30,134.26	572,884.03
J 16	German & Russian	168,610.37	1,883.30	152.92	170,646.59
J 17	Government	182,305.04	2,757.62	37,385.01	222,447.67
J 18	History	291,158.60	4,853.20	2,932.67	298,944.47
J 19	Music	87,496.23	8,185.68	14,878.52	110,560.43
J 20	Philosophy	62,146.06	1,051.06	172.50	63,369.62
J 21	Psychology	197,757.73	15,674.71	251,390.98	464,823.42
J 23	Romance Languages	323,290.40	4,079.76	27,859.84	355,230.00
J 24	Sociology & Anthropology	155,944.51	4,037.49	9,532.32	169,514.32
J 25	Speech	174,943.93	6,460.33	2,752.15	184,156.41
J 26	Art	112,306.64	4,814.34	2,515.16	119,636.14
J 27	Astronomy	8,926.56	9,817.68	464.65	19,208.89
J 32	Microbiology	94,248.26	15,561.35	22,765.24	132,574.85
J 33	Botany	142,676.60	13,199.90	36,151.42	192,027.92
J 34	Chemistry	367,472.17	68,863.08	243,828.58	680,163.83
J 35	Geography	496.25	973.30	925.25	2,394.80
J 36	Geology	114,006.11	11,743.09	17,049.35	142,798.55
J 37	Mathematics	316,047.91	4,786.55	21,201.72	342,036.18
J 38	Physics	191,073.37	31,079.48	33,708.41	255,861.26
J 39	Zoology	236,391.40	28,648.14	161,268.92	426,308.46
J 40	Statistics	22,463.51	1,230.54	1,463.81	25,157.86
	Totals	4,002,511.57	254,288.44	931,745.20	5,188,545.21
K	College of Agriculture (Instruction)				
K 01	Administration	46,262.96	3,318.67	---	49,581.63
K 03	Agric. & Food Economics	58,818.32	1,487.71	---	60,306.03
K 04	Agric. Engineering	62,616.97	4,050.26	1,154.29	67,821.52
K 07	Entomology & Plt. Pathology	70,319.89	1,869.47	7,474.14	79,663.50
K 08	Research & Production	35,524.99	7,626.49	1.00	43,152.48
K 09	Plant & Soil Science	142,178.24	5,507.87	5,058.14	152,744.25
K 10	Food Sci. & Technology	120,667.13	7,437.03	---	128,104.16
K 11	Forestry & Wildlife	76,959.09	8,199.36	1,242.15	86,400.60

Schedule G (Continued)

1965 Fiscal Year Expenditure Report
By Budget Divisions

Dept. Code		State Funds Salaries and Wages	State Funds Other Expenditures	Other Funds Salaries and Wages*	Net Total
K	College of Agriculture (Instruction cont'd.)				
K 12	Landscape Architecture	$121,554.28	$ 6,046.48	$ 405.42	$128,006.18
K 13	Environmental Science	7,140.87	157.53	---	7,298.40
K 15	Veterinary & Animal Science	144,355.47	52,403.99	800.47	197,559.93
	Sub-Totals	886,398.21	98,104.86	16,135.61	1,000,638.68
	(Extension Service)				
K 21	Administration	61,689.57	938.38	290,961.04	353,588.99
K 22	Agric. Communications	3,480.79	93.50	145.95	3,720.24
K 23	Agric. & Food Economics	68,177.13	2,648.71	66,412.46	137,238.30
K 24	Agric. Engineering	36,163.60	1,487.68	28,396.84	66,048.12
K 28	Cranberry Station	15,474.50	---	6,661.24	22,135.74
K 29	Entomology & Plt. Pathology	34,117.16	487.12	15,171.86	49,776.14
K 30	Plant & Soil Science	62,566.15	630.10	12,531.33	75,727.58
K 31	Food Sci. & Technology	37,274.41	306.48	22,807.18	60,388.07
K 32	Forestry & Wildlife	49,100.25	943.15	21,705.12	71,748.52
K 33	4-H	32,434.11	605.98	32,912.43	65,952.52
K 34	Home Economics (Ext.)	80,707.59	661.21	36,413.78	117,782.58
K 35	Landscape Architecture	2,667.75	---	---	2,667.75
K 38	Veterinary & Animal Science	66,595.15	3,063.52	23,436.87	93,095.54
K 40	Environmental Science	55,248.36	357.91	15,689.40	71,295.67
	Sub-Totals	605,696.52	12,223.74	573,245.50	1,191,165.76
	(Experiment Station)				
K 51	Administration	38,912.47	2,329.92	24,869.84	66,112.23
K 52	Agric. Communications	751.70	---	---	751.70
K 53	Agric. & Food Economics	43,735.81	1,768.64	52,321.98	97,826.43
K 54	Agric. Engineering	31,781.56	1,740.98	31,891.53	65,414.07
K 57	Environmental Science	31,715.39	1,473.13	56,352.21	89,540.73
K 60	Cranberry Station	67,290.68	5,017.98	31,162.68	103,471.34
K 62	Entomology & Plt. Pathology	67,251.66	1,228.35	41,039.15	109,519.16
K 63	Research & Production	85,924.30	33,979.87	17,272.89	137,177.06
K 64	Plant & Soil Science	142,222.96	14,521.44	72,738.10	229,482.50
K 65	Food Sci. & Technology	58,121.64	438.34	119,594.73	178,154.71
K 66	Forestry & Wildlife	57,297.59	4,744.81	62,850.71	124,893.11
K 67	Maple Decline Program	17,430.38	6,596.17	1,900.15	25,926.70
K 71	Veterinary & Animal Science	224,528.24	22,017.15	124,254.80	370,800.19
K 73	Environmental Science	141,855.21	13,343.53	47,486.75	202,685.49
K 74	Entomology & Plt. Pathology	---	15.45	---	15.45
K 75	Feed & Fertilizer	682.00	16.30	1,440.00	2,138.30
	Sub-Totals	1,009,501.59	109,232.06	685,175.52	1,803,909.17

Schedule G (Continued)

1965 Fiscal Year Expenditure Report
By Budget Divisions

Dept. Code		State Funds Salaries and Wages	State Funds Other Expenditures	Other Funds Salaries and Wages*	Net Total
K	College of Agriculture (Cont.) (Control Services)				
K 81	Seed Law	$ 37,681.79	$ 879.22	$ 1,555.74	$ 40,116.75
K 84	Feed, Fert. & Dairy Law	86,261.29	6,691.79	1,469.98	94,423.06
K 85	Entomology & Plt. Pathology	60,334.30	3,406.45	445.60	64,186.35
K 86	Veterinary & Animal Science	180,676.72	14,080.18	10.47	194,767.37
K 87	Environmental Science	28,183.82	935.71	---	29,119.53
	Sub-Totals	393,137.92	25,993.35	3,481.79	422,613.06
	College of Agriculture Totals	2,894,734.24	245,554.01	1,278,038.42	4,418,326.67
L	School of Business Administration				
L 11	Dean of Business Admin.	35,506.87	8,825.06	546.09	44,878.02
L 12	Accounting	82,500.66	380.65	186.25	83,067.56
L 13	General Business	90,533.98	410.00	11,346.90	102,290.88
L 14	Management	71,885.88	231.90	---	72,117.78
L 15	Marketing	51,504.34	254.00	5,089.55	56,847.89
	Totals	331,931.73	10,101.61	17,168.79	359,202.13
M	School of Engineering				
M 11	Dean of Engineering	46,374.67	12,737.46	27,164.07	86,276.20
M 12	Chemical Engineering	84,107.20	9,654.94	13,956.87	107,719.01
M 13	Civil Engineering	162,975.49	2,393.90	19,258.64	184,628.03
M 14	Mechanical Engineering	254,796.81	10,864.31	27,172.27	292,833.39
M 15	Electrical Engineering	156,686.41	3,944.87	3,805.48	164,436.76
	Totals	704,940.58	39,595.48	91,357.33	835,893.39
N 11	School of Home Economics	187,199.48	12,183.06	40,928.68	240,311.22
O 11	School of Nursing	133,474.05	17,278.76	21,977.49	172,730.30
P	School of Physical Education				
P 11	Dean of Physical Education	122,192.01	25,317.28	290.45	147,799.74
P 12	Physical Education - Men	202,159.67	16,440.38	39.69	218,639.74
P 13	Physical Education - Women	149,430.67	7,039.31	1,503.17	157,973.15
P 14	Athletics & Intramurals	110,791.02	562.44	1,277.79	112,631.25
P 15	Recreation	24,875.17	1,813.27	---	26,688.44
	Totals	609,448.54	51,172.68	3,111.10	663,732.32

Schedule G (Continued)

1965 Fiacal Year Expenditure Report
By Budget Divisions

Dept. Code		State Funds Salaries and Wages	State Funds Other Expenditures	Other Funds Salaries and Wages*	Net Total
Q 11	School of Education	$376,653.61	$ 21,517.41	$104,015.45	$502,186.47
	Division of Military Science				
RA 1	Air ROTC	9,752.35	1,660.18	766.03	12,178.56
RB 1	Army ROTC	9,289.83	1,139.59	41.90	10,471.32
	Totals	19,042.18	2,799.77	807.93	22,649.88
S 11	Graduate School	696,181.06	6,892.48	79,368.44	782,441.98
S 12	Computer Science	34,785.01	4,674.56	31,683.57	71,143.14
	Totals	730,966.07	11,567.04	111,052.01	853,585.12
T 11	Bureau of Government Research	32,378.81	2,924.35	670.41	35,973.57
TT 1	Labor Rel. & Res. Center	10,514.07	5,688.95	---	16,203.02
	Totals	42,892.88	8,613.30	670.41	52,176.59
U 11	Summer School	202,876.34	249.38	26,085.93	229,211.65
W 11	Public Health	46,819.97	3,046.74	10,284.15	60,150.86
X	Operation of Plant				
X 12	Operation of Plant	---	160,822.27	---	160,822.27
X 14	Materials & Supplies	---	35,700.36	---	35,700.36
X 16	Materials & Supplies	---	326,346.25	---	326,346.25
X 21	Maintenance & Repairs	462,021.09	47,821.69	33,924.16	543,766.94
X 22	Administration	32,126.07	6,354.26	783.00	39,263.33
X 23	Security	---	361.87	4,863.55	5,225.42
X 24	Custodial	622,009.95	10,786.00	79,525.25	712,321.20
X 25	Grounds	182,897.35	85,812.63	39,186.47	307,896.45
X 26	Motor Pool	44,503.63	4,320.05	15,889.49	64,713.17
X 27	Dormitory Rentals	---	702,214.10	---	702,214.10
X 28	Waltham	---	13,845.26	---	13,845.26
X 29	E. Wareham	---	2,625.58	---	2,625.58
X 32	Warehouse	33,903.33	895.47	6,757.66	41,556.46
X 33	Power Plant	122,704.00	384,938.87	308.11	507,950.98
	Totals	1,500,165.42	1,782,844.66	181,237.69	3,464,247.77

Schedule G (Continued)

1965 Fiscal Year Expenditure Report
By Budget Divisions

Dept. Code		State Funds Salaries and Wages	State Funds Other Expenditures	Other Funds Salaries and Wages*	Net Total
Z	Student Union				
Z 11	General Fund	$ ---	$ ---	$233,379.17	$233,379.17
Z 12	Food Service Fund	---	---	244,345.05	244,345.05
Z 13	University Store	---	---	111,967.39	111,967.39
Z 14	Recognized Stu. Organizations	---	---	3,841.95	3,841.95
	Totals	---	---	593,533.56	593,533.56
A-Z	Total Departments	14,022,748.02	2,920,543.81	3,572,620.10	20,515,911.93
400	Other Miscellaneous	---	---	2,593.25	2,593.25
500	Reserve & Undistributed	5,866.01	90,243.03	4,073.38	100,182.42
700	Central Duplicating Supp.	---	1,998.62 Cr.	---	1,998.62 Cr
	Grand Total	$14,028,614.03	$3,008,788.22	$3,579,286.73	$20,616,688.98

* Expenditures, other than for Salaries and Wages, not distributed by all budget divisions and departments.

Schedule H

Boarding Halls

Statement of Receipts, Disbursements and Balances

Balance, July 1, 1964			$ 521,277.90
Receipts:			
Income	$2,101,402.28		
Less: Student Refunds	170,256.40		
		1,931,145.88 *	
Net Receipts			$2,452,423.78
Disbursements:			
Salaries & Wages	776,255.23		
Food Purchases	914,315.93		
Housekeeping Supplies	35,606.19		
Travel	958.21		
Advertising	342.62		
Repairs	5,157.03		
Office & Administration Expenses	1,049.58		
Equipment	210.00		
Rental to State	152,000.00		
Capital Outlay	9,713.07		
Total Disbursements			$1,895,607.86
Balance, June 30, 1965			$ 556,815.92

* Does not include $97,122.02 received for the acount of, and transferred to, the University of Massachusetts Building Authority Third Project (Dining Commons).

Schedule I

Intercollegiate Athletics

Statement of Receipts, Disbursements and Balances

Balance, July 1, 1964		$136,694.83	
Receipts:			
Student Fees	$261,890.50		
Other Receipts	155,799.90		
Total Receipts		417,690.40	
Total Available			$554,385.23
Disbursements:			
Salaries & Wages	38,964.75		
Intercollegiate Athletics	107,496.61		
Intramural & Other Programs	27,023.04		
Athletic Injury Care	10,534.79		
Travel	11,823.06		
Operating Expense	18,497.02		
Contingencies	17,960.78		
Capital Outlay	5,144.00		
Athletic Clothing	2,636.26		
Scholarships	104,350.49		
Publicity	4,352.55		
Total Disbursements			348,783.35
Balance,June 30, 1965			$205,601.88

Athletic Reserve Account

Balance, July 1, 1964	$ 26,618.56
Interest on Savings Account	1,202.95
Balance, June 30, 1965	$ 27,821.51

Schedule J

Student Health Service

Statement of Receipts, Disbursements and Balances

Balance, July 1, 1964		$ 41,812.35	
Receipts:			
Income	$423,702.26		
Less: Student Refunds	10,110.00		
		413,592.26	
Net Receipts			$455,404.61
Disbursements:			
Salaries and Wages	291,575.97		
Food Purchases	3,877.34		
Clothing	1,258.55		
Housekeeping Supplies	4,526.72		
Laboratory & Medical Supplies	26,821.94		
Travel	2,288.13		
Advertising & Printing	673.93		
Repairs	669.89		
Office Supplies	7,313.72		
Equipment	7,468.09		
Total Disbursements			346,474.28
Balance, June 30, 1965			$108,930.33

Schedule K-1

Student Union - University Store Fund

Statement of Income and Expenses
July 1, 1964 to June 30, 1965

	Supplies	Books	Totals
Sales:	$420,033.01	$713,639.42	$1,133,672.43
Cost of Goods Sold:			
Inventory 7/1/64	83,109.06	118,060.17	201,169.23
Net Purchases	300,129.63	616,570.14	916,699.77
	383,238.69	734,630.31	1,117,869.00
Less Inventory 6/30/65	103,114.04	148,370.08	251,484.12
Cost of Goods Sold	280,124.65	586,260.23	866,384.88
Gross Profit on Sales:	$139,908.36	$127,379.19	$ 267,287.55
Other Income:			
Xerox Services			$ 20,703.78
Post Office			3,999.96
Miscellaneous Income			1,462.85
Income from Laboratory Collections			6,353.13
Lobby Counter Sales			56,410.04
Gross Profit from Operations			$356,217.31
Less Expenses:			
Permanent Payroll		$93,913.04	
Student Payroll		9,043.50	
S. U. Service Charges		4,790.53	
Supplies Expense		3,173.98	
Insurance		2,180.00	
Employees Group Insurance		944.26	
Depreciation Expense		2,447.68	
Repairs, Maintenance and Additions		1,098.43	
Telephone and Telegraph		560.49	
Postage and General Transportation		641.18	
Advertising		167.50	
Laundry		37.19	
Miscellaneous Expense		4,959.62	
Education and Travel		346.95	
Xerox Services Expenses		15,425.97	
Lobby Counter Expenses		57,114.44	
Total Expenses			$196,844.76
Excess of Income over Expenses			$ 159,372.55

Schedule K-2

Student Union - University Store Fund

Balance Sheet - June 30, 1965

ASSETS		
Cash on Hand		$ 5,500.00
Cash in Bank		181,275.42
Cash in Transit		525.39
Contribution to S.U. Reserve Fund		24,034.88
Prepaid Books		196.95
Accounts Receivable		15,364.73
Equipment	$24,160.92	
Less Depreciation	10,943.61	13,217.31
Inventory - Lobby Counter 6/30/65		1,125.23
Inventory - Univ. Store 6/30/65		251,484.12
		$492,724.03

LIABILITIES AND NET WORTH		
Sales Tax Payable		$ 874.63
Lab. Charge Reserve		26,571.84
Accrued Payroll		2,033.38
Accounts Payable		2,530.33
Net Worth	$484,748.73	
S. U. Reserve Fund	24,034.88	
Total Net Worth		460,713.85
		$492,724.03

Net Worth Account

Balance July 1, 1964	$348,041.30
Less Transfer to Student Union General Fund	46,700.00
	301,341.30
Excess of Income over Expenses for the Year	159,372.55
Net Worth as of June 30, 1965	$460,713.85

Schedule K-3

Student Union - Food Service Fund
Statement of Income & Expenses
July 1, 1964 to June 30, 1965

SALES & INCOME		
Counter Sales	$580,618.46	
Catering Sales	73,798.61	
Total Sales	654,417.07	
Miscellaneous Operating Income	2,261.35	
Vending Commissions	929.13	
Cash Over	152.09	
Juke Box Income	1,114.20	
Total Income		$658,873.84
COST OF GOODS SOLD		
Inventory 7/1/64	4,290.20	
Food Purchases	289,557.36	
	293,847.56	
Less Cash Discounts	2,050.49	
	291,797.07	
Inventory 6/30/65	4,563.76	
Cost of Goods Sold		287,233.31
Gross Profit on Sales & Income		371,640.53
EXPENSES		
Salaries - Permanent Payroll	240,489.20	
Salaries - Student Payroll	12,071.01	
Charge for Office Services	4,188.22	
Supplies	26,340.73	
Telephone	454.53	
Repairs & Maintenance	8,191.68	
Laundry	6,930.13	
China & Silver	2,736.41	
Heat & Utilities	456.96	
Depreciation Expense	3,526.32	
Employees Group Insurance	2,540.29	
Travel & Education	139.01	
Miscellaneous	70.34	
Uniforms	74.83	
Total Expenses		308,209.66
Excess of Income over Expenses		$ 63,430.87

Schedule K-4

Student Union - Food Service

Balance Sheet - June 30, 1965

ASSETS			LIABILITIES & CAPITAL		
Cash in Bank		$ 90,166.69	Accounts Payable		$ 23,979.52
Cash on Hand		900.00	Mass. Old Age Tax Payable		730.29
Cash in Transit		1,675.69	Accrued Payroll		2,387.65
Contributions to S.U. Reserve		76,593.70	Net Worth	104,438.14	
Accounts Receivable		7,420.75	S.U. Reserve Fund	76,593.70	
Accrued Income Receivable		2,710.68	Total Net Worth		181,031.84
Inventory 6/30/65		4,563.76			
Equipment	37,931.40				
Less Depreciation	13,833.37	24,098.03			
		$208,129.30			$208,129.30

Net Worth Account

Balance July 1, 1964	$177,600.97
Transfer to Student Union General Fund	60,000.00
	117,600.97
Excess of Income Over Expenses for the Year	63,430.87
Net Worth as of June 30, 1965	$181,031.84

Schedule K-5

Student Union General Fund
Statement of Income & Expenditures
July 1, 1964 - June 30, 1965

Income		
Student Fees Collected	$200,234.19	
Less Refunds	5,449.60	$194,784.59
Student Senate Appropriation		12,000.00
Transfer from Food Service		60,000.00
Transfer from University Store		46,700.00
Conference Services		196,195.59
Games Area		29,087.82
Rental & Custodial Fees		8,079.81
Office Services		6,147.54
Lobby Counter Sales		46,118.65
Other Activities		11,311.58
Total Income for the Year		$610,425.58
Expenditures		
Administrative		$ 94,160.13
Maintenance		63,916.45
Games Area		28,827.12
Student Activities		24,701.62
Conference Services		192,106.21
Renovation Expenses		16,056.52
Lobby Counter		45,712.24
Building Rental		100,000.00
Other Activities		9,120.34
Total Expenditures for the Year		$574,600.63
Excess Income over Expenditures		$35,824.95

Schedule K-6

Student Union General Fund
Balance Sheet
June 30, 1965

Assets

Cash on Hand		$ 10,050.00
Cash in Bank		95,991.94
Cash in Transit		2,801.23
Contributions to S.U. Reserve		39,664.63
Accounts Receivable		51,415.62
Equipment	$62,480.82	
Less Accumulated Reserve for Depreciation	9,965.52	52,515.30
Total Assets		$252,438.72

Liabilities & Capital

Accounts Payable		$ 87,782.57
Summer Sessions Activities Fund		4,000.97
Free Capital	120,990.55	
S. U. Reserve Fund	39,664.63	
Capital		160,655.18
Total Liabilities & Capital		$252,438.72

Capital Account

Capital July 1, 1964	$124,830.23
Plus 1964-1965 Excess of Income over Expenditures	35,824.95
	$160,655.18

Schedule K-7

Student Union Reserve Fund
Balance Sheet
June 30, 1965

Cash on Deposit	$148,654.08	Reserve for Equipment Replacements:	
		Student Union General Fund	$ 39,664.63
		Student Union Food Service	76,593.70
		University Store	24,034.88
		Interest	8,360.87
	$148,654.08		$148,654.08

Schedule K-8

Recognized Student Organizations
Statement of Receipts, Disbursements and Balances
Year Ending June 30, 1965

Balance July 1, 1964			
First National Bank		$20,000.88	
Amherst Savings Bank		57,904.39	
Total			$ 77,905.27
Receipts:			
Student Fees	$233,189.00		
Less Refunds	5,918.30		
		227,270.70	
Cash Deposits		177,059.12	
Transfers		327,874.18	
			732,204.00
Total			$810,109.27
Disbursements:			
Cash		408,144.87	
Transfers		327,874.18	
			736,019.05
Balance June 30, 1965			
First National Bank		3,713.18	
Amherst Savings Bank		70,377.04	
			74,090.22
TOTAL			$810,109.27

Schedule L

Inventory of Land

Location	Acreage	Assessed Valuation June 30, 1965
Amherst	716.2	$2,696,100.00
Hadley	377.7	188,100.00
Amherst	46.0	500.00
Pelham	.5	100.00
Pelham	1,196.0	20,000.00
Belchertown	218.0	12,700.00
Belchertown	4.0	100.00
Sunderland	726.2	17,600.00
Leverett	28.8	270.00
East Wareham	26.8	11,550.00
Waltham	58.8	92,450.00
South Deerfield	358.1	21,020.00
Nantucket Island	106.0	11,000.00
Totals	3,863.1	$3,071,490.00

Schedule L-1

Inventory of Buildings and Structures

Bldg. No.	Year Constructed	Location	Description	Assessed Valuation June 30, 1965
1	1919	Amherst	Adams Hall (Dormitory)	$ 128,175.00
5	1940	Amherst	Butterfield Hall (Dormitory)	232,598.00
7	1948	Amherst	Berkshire House (Dormitory)	165,266.00
8	1948	Amherst	Hampshire House (Apartment)	165,266.00
9	1948	Amherst	Middlesex House (Dormitory)	163,800.00
10	1948	Amherst	Plymouth House (Dormitory)	165,266.00
11	1948	Amherst	Suffolk House (Apartment)	163,800.00
28	1940	Amherst	Lewis Hall (Dormitory)	177,019.00
30	1935	Amherst	Thatcher House (Dormitory)	193,950.00
38	1869	Amherst	Blaisdell House	4,000.00
41	1909	Amherst	David House)	
42	1909	Amherst	David Barn)	1,200.00
43	1923	Hadley	Farm Bungalow #1)	
44	1923	Hadley	Farm Bungalow #2)	
45	1914	Hadley	Piggery)	16,470.00
46	1927	Hadley	Garage)	
47	1911	Hadley	Barn)	
48	1947	Amherst	Brooder House	100.00
49	1947	Amherst	Brooder House	100.00
50	1947	Amherst	Brooder House	100.00
51	1947	Amherst	Brooder House	100.00
52	1914	Amherst	Milker's House	2,100.00
53	1910	Amherst	Harlow House	2,550.00
54	1922	Amherst	Hilton House	9,400.00
55	1922	Amherst	Hilton Garage	300.00
56	1867	Amherst	Mellen's House	1,200.00
57	1884	Amherst	President's House	19,000.00
58	1955	Amherst	Montague House	8,000.00
59	1939	Amherst	Tillson Garage	384.00
60	1926	Amherst	Tillson House	6,714.00
61	1867	Amherst	Homestead House	14,800.00
62	1867	Amherst	Stockbridge House	9,100.00
63	1911	Amherst	Waiting Station (Shelter)	500.00
64	1930	Amherst	Scale House	250.00
65	1961	Amherst	Kiln	2,500.00
70	1929	Amherst	Garage	2,500.00
71	1918	Amherst	Grounds Tool Shed and Garage	245.00
72	1953	Amherst	Animal Isolation Laboratory	98,500.00
73	1957	Amherst	Thayer Laboratory	50,000.00
74	1911	Amherst	Apiary	3,000.00
76	1959	Amherst	Power Supp. Facility	3,432,764.00
77	1937	Amherst	Bowditch Lodge	5,400.00
78	1925	Amherst	Cavalry Barns (Storage)	16,500.00
79	1950	Amherst	R.O.T.C. Garage	63,800.00
80	1885	Amherst	Chapel - Classrooms	76,288.00
82	1959	Amherst	Goessmann Laboratory & Classroom	2,896,900.00
83	1907	Amherst	Clark Hall Laboratory & Classroom)	
84	1907	Amherst	Greenhouse)	67,400.00
85	1953	Amherst	Food Service Building	985,300.00
86	1961	Amherst	Food Service Building	504,475.00
87	1903	Amherst	Draper Hall Classrooms)	
88	1947	Amherst	Draper Hall - Storage)	296,529.00

Schedule L-1 (Continued)
Inventory of Buildings and Structures

Bldg. No.	Year Constructed	Location	Description	Assessed Valuation June 30, 1965
89	1889	Amherst	East Experiment Station Laboratory	$ 14,000.00
90	1949	Amherst	Elm Disease Laboratory	23,400.00
75	1951	Amherst	Power Supp. Facility	
81	1922	Amherst	Laboratory	
91	1949	Amherst	Gunness Laboratory	374,500.00
92	1950	Amherst	Engineering Classrooms (Elec.)	1,120,753.00
93	1949	Amherst	Engineering Classrooms	118,500.00
94	1915	Amherst	Engineering Shops Labs. & Classrooms	28,550.00
95	1933	Amherst	Farley 4-H Lodge	3,500.00
96	1955	Amherst	Durfee Greenhouse	69,684.00
97	1910	Amherst	Fernald Hall - Laboratory	80,000.00
98	1910	Amherst	Fernald Hall Greenhouse	825.00
99	1911	Amherst	Fisher Cold Storage	24,616.00
100	1912	Amherst	Flint Laboratory	210,723.00
101	1930	Amherst	Chenoweth Laboratory	69,966.00
102	1867	Amherst	Forestry - Classrooms & Lab.)	5,180.00
103	1867	Amherst	Classrooms & Laboratory)	
104	1909	Amherst	French Hall - Classrooms & Labs.	74,356.00
105	1908	Amherst	French Hall Greenhouse	25,500.00
106	1915	Amherst	Hospital	34,300.00
107	1960	Amherst	Bartlett - Classrooms & Lab.	2,181,125.00
108	1931	Amherst	Ravine #1 - Storage	2,150.00
109	1931	Amherst	Ravine #2 - Storage	2,150.00
110	1923	Amherst	Old Paint Shop - Storage	1,574.00
111	1957	Amherst	Machmer Hall - Classrooms	967,578.00
112	1947	Amherst	Marshall Hall - Classrooms)	68,459.00
113	1915	Amherst	Classrooms & Labs.)	
114	1896	Amherst	Mathematics - Classrooms	6,000.00
115	1920	Amherst	Memorial Hall - Classrooms	107,425.00
116	1898	Amherst	Munson Hall - Administration)	70,127.00
117	1899	Amherst	Munson Hall - Administration)	
118	1891	Amherst	Hatch - Classrooms & Labs.	19,374.00
119	1891	Amherst	Hatch Laboratory	2,000.00
120	1950	Amherst	Paige Laboratory	487,500.00
121	1931	Amherst	Physical Education (Men))	287,500.00
122	1931	Amherst	Physical Education (Men))	
123	1959	Amherst	Physical Education (Women)	1,716,581.00
124	1950	Amherst	Hasbrouck - Classrooms & Labs.	501,000.00
125	1907	Amherst	Power Supp. Facility	12,000.00
126	1959	Amherst	Public Health - Classrooms & Labs.	1,360,800.00
127	1960	Amherst	Morrill Hall - Classrooms & Labs.	1,941,020.00
128	1948	Amherst	Skinner Hall - Classrooms & Labs.	596,700.00
129	1885	Amherst	South College Administration	100,300.00
130	1912	Amherst	Stockbridge - Classrooms & Lab.	417,066.00
132	1960	Amherst	Dickinson Hall - Classroom & Labs.	468,105.00
133	1918	Amherst	Power Supp. Facility	17,665.00
134	1952	Amherst	Power Supp. Facility	263,615.00
135	1959	Amherst	Vegetable Gardening - Classroom & Lab.	293,500.00
136	1911	Amherst	Arena)	38,000.00
137	1929	Amherst	Slaughter House)	
139	1950	Amherst	Physical Education - Garage)	3,000.00
139	1950	Amherst	Storage)	
140	1945	Amherst	Press Box Athletic	1,000.00
141	1931	Amherst	Ticket Booth Athletic	500.00

Schedule L-1 (Continued)
Inventory of Buildings and Structures

Bldg. No.	Year Constructed	Location	Description	Assessed Valuation June 30, 1965
142	1921	Amherst	Poultry House	$ 2,450.00
143	1916	Amherst	Poultry House	504.00
144	1917	Amherst	Poultry House	400.00
145	1956	Amherst	Poultry House	800.00
146	1955	Amherst	Poultry House	600.00
147	1956	Amherst	Poultry House	800.00
148	1947	Amherst	Brooder House	100.00
151	1923	Amherst	Poultry House	500.00
152	1923	Amherst	Poultry House	500.00
153	1957	Amherst	Brooder House	100.00
154	1957	Amherst	Brooder House	100.00
155	1957	Amherst	Brooder House	100.00
156	1939	Amherst	Poultry House	5,300.00
157	1939	Amherst	Storage	3,000.00
158	1947	Amherst	Brooder House	5,000.00
159	1941	Amherst	Storage	1,000.00
160	1959	Amherst	Poultry House	8,000.00
163	1947	Amherst	Brooder House	100.00
164	1947	Amherst	Brooder House	100.00
165	1947	Amherst	Shelters	1,000.00
166	1894	Amherst	Horse Barn	5,000.00
168	1885	Amherst	West Exp. Sta. Laboratory	27,000.00
169	1906	Amherst	Wilder Hall Classrooms	45,662.00
170	1960	Amherst	Maintenance	627,000.00
171	1934	Amherst	Goodell Library)	1,940,873.00
172	1960	Amherst	GOodell Library)	
173	1960	Amherst	Vegetable Gardening Greenhouse	500.00
174	1928	Amherst	Shop and Garage (Station Service)	2,000.00
175	1928	Amherst	Barn (Station Service)	4,500.00
176	1928	Amherst	Barn (Station Service)	5,000.00
177	1920	Amherst	Horticulture Mfg. Shed	400.00
178	1933	Amherst	Horticulture Mfg. Shed	1,254.00
179	1920	Amherst	Center Storage Shed	800.00
181	1918	Amherst	Tractor Garage	73.00
182	1911	Amherst	Brooder House	3,100.00
183	1912	Amherst	Poultry Classroom	2,700.00
184	1940	Amherst	Poultry House	10,000.00
185	1918	Amherst	Tool Shed	98.00
186	1915	Amherst	Poultry House	50.00
187	1915	Amherst	Shed	100.00
188	1914	Amherst	Poultry House	1,250.00
189	1910	Amherst	Barn)	33,211.00
190	1910	Amherst	Dairy Barn)	
191	1958	Amherst	Silo)	
192	1958	Amherst	Harvestore Silo	2,000.00
193	1941	Amherst	Barn	4,000.00
194	1910	Amherst	Machinery Shop	4,000.00
195	1928	Amherst	Farm Horse Barn	6,194.00
196	1938	Amherst	Dairy Barn	8,000.00
197	1909	Amherst	Dairy Barn	6,500.00
198	1939	Amherst	Young Stock Barn	36,837.00
199	1939	Amherst	Silo	200.00
200	1939	Amherst	Silo	200.00

Schedule L-1 (Continued)
Inventory of Buildings and Structures

Bldg. No.	Year Constructed	Location	Description	Assessed Valuation June 30, 1965
201	1939	Amherst	Beef Barn Unit - Barn	$ 5,500.00
202	1939	Amherst	Silo	200.00
180	1910	Amherst	Barn	
167	1959	Amherst	Greenhouse	
203	1939	Amherst	Young Stock Hay Barn	5,000.00
204	1922	Amherst	Bull Barn	14,041.00
205	1933	Amherst	Barn	500.00
206	1927	Amherst	Sheds	50.00
207	1929	Amherst	Poultry House	200.00
209	1924	Amherst	Brooks Tobacco Shed	3,000.00
210	1957	Amherst	Brooder House	100.00
211	1958	Amherst	Poultry House	2,500.00
212	1958	Amherst	Poultry House	2,500.00
213	1951	Amherst	Comfort Station	20.00
241	1920	Amherst	Garage	3,185.00
242	1951	Amherst	Poultry House	4,127.00
243	1958	Amherst	Poultry House	7,148.00
244	1958	Amherst	Poultry House	7,147.00
245	1950	Amherst	Poultry House	7,675.00
246	1947	Amherst	Brooder House	100.00
247	1947	Amherst	Brooder House	100.00
248	1947	Amherst	Brooder House	100.00
249	1947	Amherst	Brooder House	100.00
250	1947	Amherst	Brooder House	100.00
251	1947	Amherst	Brooder House	100.00
252	1947	Amherst	Brooder House	100.00
253	1947	Amherst	Brooder House	100.00
254	1957	Amherst	Brooder House	100.00
255	1957	Amherst	Brooder House	100.00
256	1957	Amherst	Brooder House	100.00
257	1957	Amherst	Brooder House	100.00
258	1957	Amherst	Brooder House	100.00
259	1927	Amherst	Open Corn Crib Shed	100.00
260	1927	Amherst	Open Corn Crib Shed	100.00
261	1927	Amherst	Open Corn Crib Shed	100.00
262	1927	Amherst	Open Corn Crib Shed	100.00
263	1927	Amherst	Open Corn Crib Shed	100.00
264	1927	Amherst	Open Corn Crib Shed	100.00
289	1962	Amherst	Laboratory - School of Education & Practice School	1,844,690.00
290	1962	Amherst	Laboratory & Classroom - Science Center, 3rd Section	1,452,177.00
291	1962	Amherst	Infirmary	961,459.00
292	1962	Amherst	Cold Storage	641,191.00
293	1962	Amherst	Lab. & Classroom - Engineering & Physics Shops	682,187.00
68	1961	Pelham	Radio Station	1,500.00
66	1918	Sunderland	Shed	1,500.00
67	1918	Sunderland	House	3,000.00
233	1952	E. Wareham	Laboratory)	
234	1957	E. Wareham	Shop)	
234		E. Wareham	Garage)	

Schedule L-1 (Continued)
Inventory of Buildings and Structures

Bldg. No.	Year Constructed	Location	Description	Assessed Valuation June 30, 1965
235	1926	E. Wareham	Pumping Station)	$
236	1955	E. Wareham	Laboratory)	
237	1957	E. Wareham	Greenhouse)	3,050.00
238	1958	E. Wareham	Pumping Station)	
239	1960	E. Wareham	Laboratory)	
240	1960	E. Wareham	Storage)	
214	1926	Waltham	Laboratory)	
215	1928	Waltham	Laboratory)	
216	1934	Waltham	Laboratory)	
217	1957	Waltham	Greenhouse)	
218	1924	Waltham	Barn)	
219	1924	Waltham	Shed)	
220	1924	Waltham	Laboratory)	
221	1924	Waltham	House)	
222	1924	Waltham	Barns)	56,500.00
223	1924	Waltham	Greenhouse)	
224	1929	Waltham	Greenhouse)	
225	1950	Waltham	Shed)	
226	1929	Waltham	Greenhouse)	
227	1935	Waltham	Propagating Building)	
228	1959	Waltham	Greenhouse)	
229	1949	Waltham	Administration)	
230	1949	Waltham	Power Supp. Facility)	
231	1924	Waltham	Garage)	
232	1924	Waltham	Poultry House)	
265	1920	S. Deerfield	House)	
268	1948	S. Deerfield	Storage)	
269	1947	S. Deerfield	Storage)	
270	1939	S. Deerfield	Storage)	
271	1946	S. Deerfield	Storage)	27,950.00
273	1941	S. Deerfield	Storage)	
274	1935	S. Deerfield	Storage)	
275	1947	S. Deerfield	Storage)	
276	1933	S. Deerfield	Storage)	
277	1938	S. Deerfield	Silo)	
278	1922	Belchertown	House)	
279	1920	Belchertown	Barn)	
280	1920	Belchertown	Barn)	21,400.00
281	1920	Belchertown	Storage)	
282	1920	Belchertown	Shed)	
296	1963	Amherst	Laboratory & Classroom - Natural Resources	1,213,340.00
297	1910	Amherst	House - Bigelow	3,600.00
298	1910	Amherst	Barn - Bigelow)	
299	1910	Amherst	Poultry House - Bigelow)	600.00
300	1910	Amherst	Garage - Bigelow	
301	1917	Amherst	House - Fenton	3,800.00
303	1917	Amherst	House - Donahue	3,800.00
304	1917	Amherst	House - Ocicki	1,800.00
305	1914	Amherst	House - French	2,000.00

Schedule L-1 (Continued)
Inventory of Buildings and Structures

Bldg. No.	Year Constructed	Location	Description	Assessed Valuation June 30, 1965
306	1908	Amherst	House - Adams	$ 3,000.00
309	1910	Amherst	House - Wysocki	3,250.00
310	1910	Amherst	Barn - Wysocki)	
311	1910	Amherst	Shed - Wysocki)	1,250.00
312	1910	Amherst	Shed - Wysocki)	
313	1959	Nantucket	House	3,500.00
314	1961	Nantucket	Garage	700.00
315	1959	Nantucket	Garage & Apartment	1,200.00
316	1953	Nantucket	Beach House	600.00
317	1963	Amherst	Classroom & Office - Business Administration	1,412,091.00
318	1963	Amherst	Physics Building - Laboratory	1,899,019.00
319	1963	Amherst	Boyden Gym	2,718,112.00
320	1949	Amherst	House - Holmes)	
321	1920	Amherst	Barn - Holmes)	4,000.00
322	1920	Amherst	Barn - Holmes)	
323	1910	Amherst	House - Malinoski	5,340.00
324	1900	Amherst	House - Taylor)	
325	1900	Amherst	Barn - Taylor)	
326	1900	Amherst	Barn - Taylor)	16,660.00
327	1900	Amherst	Shed - Taylor)	
328	1963	Hadley	Shed	
329	1965	Amherst	Auditorium - Mahar	231,117.00
335	1965	Amherst	Observatory	10,000.00
336	1965	Amherst	Mobile Classroom	8,265.00
337	1965	Amherst	Mobile Classroom	8,265.00
338	1965	Amherst	Mobile Classroom	8,265.00
339	1965	Amherst	Mobile Classroom	8,265.00
340	1965	Amherst	Mobile Classroom	8,265.00
341	1965	Amherst	Greenhouse (Orlyte)	18,664.00
342	1965	Amherst	Kiln	14,500.00
				$40,549,397.00

Schedule L-2

Inventory of Improvements other than Buildings

	Book Value June 30, 1965
Roads, Sidewalks and Parking Areas	$ 350,959.46
Sewer, Water and Drainage System	1,199,636.46
Steam Lines	2,780,994.35
Electrical Lines	1,613,691.20
Tennis Courts	90,894.25
Playing Fields	258,518.12
Coal Platform and Scales	29,509.43
Total	$6,324,203.27

PLACEMENT & FINANCIAL AID SERVICES

UNIVERSITY OF MASSACHUSETTS

Amherst, Massachusetts

A N N U A L R E P O R T

(July 1, 1964 - June 30, 1965)

Robert J. Morrissey

Director

May, 1965

PLACEMENT & FINANCIAL AID SERVICES

STAFF

With far too little assistance and excessive workloads the staff of the Placement & Financial Aid Services has shown a dedication to their tasks and particularly to the cause of "service to students" in a most exemplary manner.

The section of Women's Placement, and Men's Liberal Arts and Business Administration Placement with Undergraduate Assistantship assignments, is particularly fortunate in having the clerical services of Miss Irene Wallner and Miss Pamela Lenois. Both of these young ladies came to this office with little previous experience, and both have approached each new task with patience, cheerfulness, and most important of all a willingness to learn. On July 1, 1964 a request was made and granted for Miss Wallner's promotion which gives clear evidence that she is an asset to this office. Miss Lenois should be singled out for special mention since she learned the duties of her position in the shortest possible time, and has shown a highly developed sense of responsibility in performing these without direct supervision since Mr. Terry's resignation in December 1964. Miss Noska works in an efficient manner that is a pleasure to observe. She also shows excellent tact in dealing with students, faculty and visitors and has the many facets of her work well organized. Mrs. Jones came with us in November and has quickly grasped the intricacies of the loan and scholarship section and has aided greatly in organizing this area. Mrs. Hogan has accepted supervisory responsibilities as well as secretarial and clerical duties with a willingness and pleasant attitude that would be hard to surpass. Mrs. Sienkiewicz, who has responsibilities in the loan and scholarship section, has been plagued with a great deal of illness this year.

Miss Edith Antunes deserves special commendation for her forbearance and diligence in handling a truly overburdened situation this year. Already taxed by the ever increasing female student body for which she is responsible in career planning and placement matters, she took it upon herself with no prompting from any source to aid many of the men in their career planning and placement activities from December 1964 to June 1965 during which time a replacement for Mr. Terry had not been found. In addition to her excellent counseling, she frequently aids in overall administrative detail and is ever cognizant of tomorrow's needs.

Mr. George Emery has been very devoted to his tasks this year and willingly accepts any new assignments given him. He has become particularly knowledgeable in the teacher placement area and makes every effort to help each student who comes to him regarding the variety of areas for which he is responsible.

Mr. Lynn Santner joined the staff in November to replace Mr. Lawrence who transferred to the Admissions Office. He has shown a keen interest in the overall operation and has deftly handled the volume of administrative detail involved in the loan and scholarship area where he has primary responsibility. His financial counsel to students has been excellent and his coordination with other areas of the campus, so necessary in this work, has been above reproach.

Mr. Robert Gailey joins the staff on June 1, 1965 and will be responsible initially for the assignment of undergraduate assistants and career planning and placement of Liberal Arts and Business Administration students. As a former officer in the ROTC program at the University he is very familiar with the campus and should prove a fine addition to our staff.

PLANS PART - FIELD AID SERVICES

[illegible]

With far too little assistance and no service worthy of the name, Placement & Financial Aid Services has chosen a direction to alert them and particularly to the cause of "service to students" in a more exemplary manner.

The success of Oracle's Placement, and Penn's Liberal Arts and Business Administration Placements with Undergraduate Administrative assignments, is particularly fortunate, lacking the efficient services of "San Jose Dailies" in a "people limited" job of these young ladies seem to relish with little question, operations, and with have appreciated each new task with pertinence, objective and marketing skills. [illegible] all a willingness to learn. On July 1, 1954 a transfer was made and granted the [illegible] promotion which gives clear evidence that the VP is in favor of Placement Office. Miss Lecoin should be singled out for special mention, and deserves the [illegible] of her position in the placement hierarchy. Miss Lecoin's [illegible] level and sense of responsibility in working with students and employers [illegible] Vice V. Dorf's resignation in December 1954. Miss Lecoin has an efficient manner that is pleasure to observe. Her airy chic [illegible] with [illegible] students, faculty and visitors and has [illegible] [illegible] [illegible]

FUNCTIONS

(In Alphabetical Order)

1. Career and Financial Counseling are the main raison d'etre of these services. The staff endeavors to assist students in changing their attitudes and behavior, or understanding them better, as they relate to careers and finances. Individual and groups of students are advised on matters of concern to them and they are given the specific information they need or require.

2. Draft Registration is a demanding clerical task which must be accomplished with regularity. Students are exempt from the draft only when the proper forms are sent in by this office. Much counsel is sought regarding the military draft and other military programs inasmuch as they strongly affect immediate career plans. 4,169 Selective Service Forms 109 for undergraduates and 103 for graduate students (information that defers a student from the draft) have been processed. One copy is retained here, one is sent to the local draft board, and one is sent to the registrant.

3. Employment Interviews require a great deal of advance planning. Dates are scheduled one year in advance. Interview appointments for students are made; employers are received, given credentials, explanation and information on University procedures and policies; resumes and recommendations of students to be interviewed are processed; and luncheons and other arrangements are made for employers to meet faculty. 4,487 on-campus interviews were conducted by 488 employers. This is an increase of 537 interviews and 13 employers in one year. Does not include 75 scheduled visits which were cancelled.

4. Job Placement picked up perceptively this year. More employment recruiters were in evidence but they were being highly selective. More emphasis was placed on scholastic record. The demand for electrical engineers dropped off somewhat but industrial and civil engineers were sought after in greater numbers than in previous years. The demand for teachers has grown tremendously with the recruiting activity in this area expanding at a very rapid rate (i.e. principals and superintendents of school systems from California, Nevada, and elsewhere throughout the nation visited our campus to interview our prospective teachers.) Business Administration students seemed to have more opportunities available this year.

5. Occupational Information, employer literature, career guidance books, pamphlets and brochures are received, catalogued and displayed for ready reference by students. Information on graduate schools, fellowships, assistantships, foreign opportunities, summer work, etc. is included. We are hard pressed for adequate space for display of this literature and adequate reading area for students.

6. Loans, an integral part of the financial aid program, continue to increase both in number of applicants and total amount of money loaned. 1,523 students have received $754,513 in loans this year.

7. Part-time Work is sought by many more students than jobs available. The number of jobs has not increased in proportion to the increase in size of the student body - indeed there has been little increase in numbers of on-campus jobs for many years. The number of off-campus jobs is insignificant in this area. 2,273 students participated in some form of part-time work ranging from only a few hours work to 10 months, earning a total of $401,588.92 from July 1, 1964 to April 1, 1965. Of this amount $163,196.70 was from various grants and $238,392.22 was from 03 funds. 112 students earned over $600 and 1,107 students earned less than $100.

8. Scholarships and Grants-in-Aid have changed rapidly in complexity in the last few years. The number of students applying for scholarships increases each year (i.e. 2,800 freshmen and 1,450 upperclass students applied for scholarships for the year 1964-65; 3,600 freshmen and 1,500 upperclass students have already submitted applications for the year 1965-66), 1,156 students received $456,512.00 in scholarships and grants-in-aid in 1964-65.

9. Summer Employment presents a gloomy picture for our students. An important segment of financial aid and placement as well, it does not receive the attention it should due to limitations in staff time. With the market as poor as it is, some person should be spending at least half-time on this problem to garner as many opportunities for our students as possible.

10. Undergraduate Assistantships, in their second year, brought awards with educational and academic work experience to 324 students. Again we would remind all that this program should not become a substitute or supplement for menial jobs that currently are under the part-time work program.

11. Veterans Affairs as such ceased to exist as of January 31, 1965 since educational training for veterans under Public Law 550 (Korean bill) was terminated on that date. 20 veterans who had been enrolled under this Law in the summer sessions of 1964 and the fall semester of the academic year 1964-65 were affected. 50 "War Orphans", children of deceased veterans, were enrolled this year under Public Law 634.

12. Work-Study Program inaugurated under the Economic Opportunity Act of 1964 had its start here in February 1965. Designated to aid culturally deprived students, this federally aided program allows students from very low income families (i.e. $3,000 income in one child family) to work up to 15 hours per week and earn up to $500 per year. Although the University project was approved for 100 jobs and over 200 jobs were available, only 26 students were found this semester who were interested and could qualify for this work and aid. It is anticipated that larger numbers will take advantage of this program as it becomes better known.

13. Graduate Degree Placement. Although placement of graduate degree students has always taken place on a very minute scale, it now is reaching much greater proportions. 194 graduate students registered with the Placement Office and 11 employer visits were made to the campus in October and November specifically to recruit these graduate degree students.

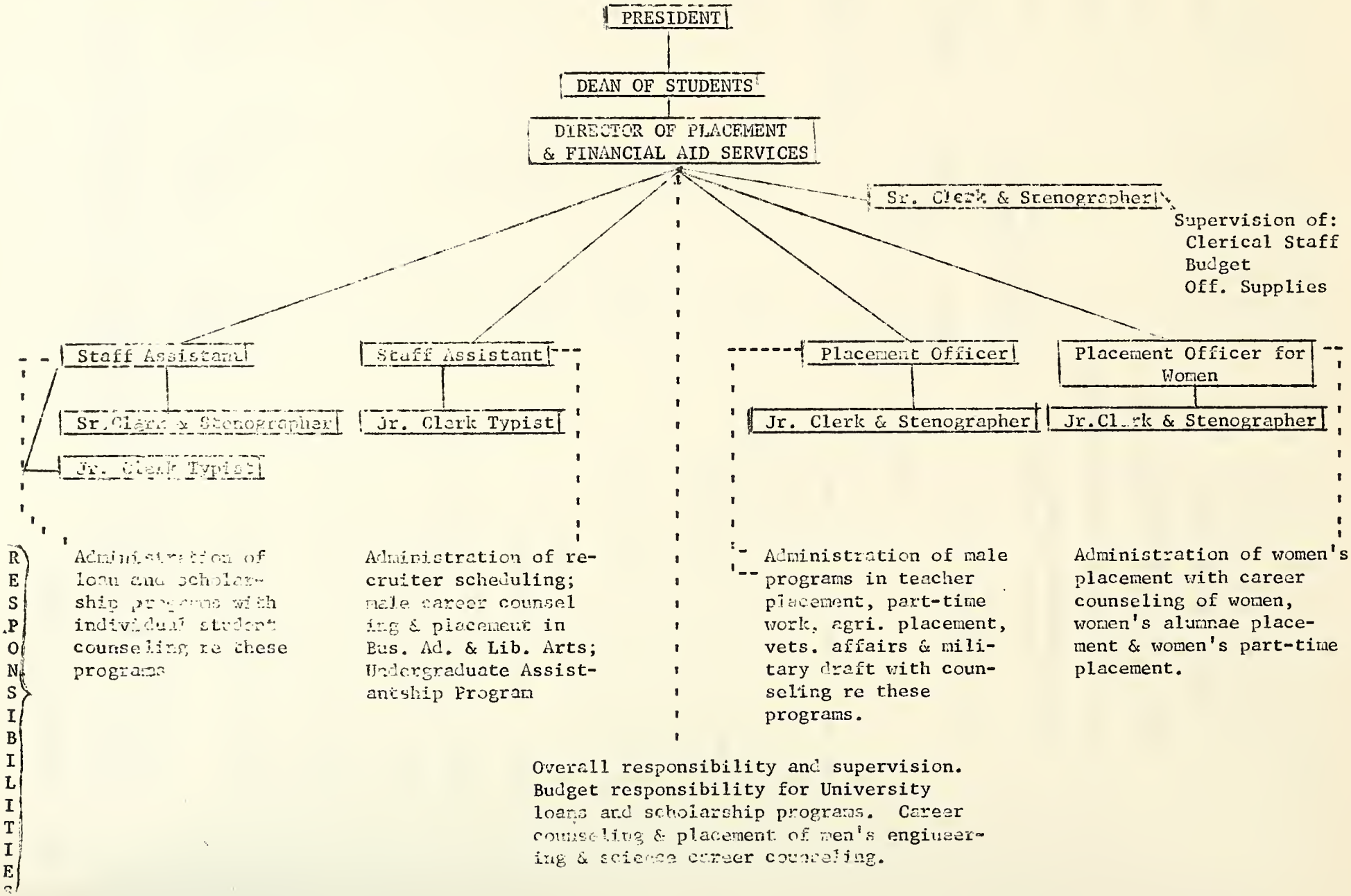
1964-65 ANNUAL REPORT OF THE PLACEMENT & FINANCIAL AID SERVICES

As per the memorandum from the Secretary of the University dated April 14, 1965, the following report of the Placement & Financial Aid Services for the period July 1, 1964 through June 30, 1965, is submitted. Complete data on the after graduation plans of the class of 1964 is also included. Statistics on the after graduation plans for the class of 1965 will not be available until September.

1. APPROPRIATION - Fiscal Year		1962-63 Actual Expenditure	1963-64 Actual Expenditure	1964-65 Allotment
Student Labor	- 03	$3,753.76	2,753.71	3,000.00
Travel	- 10	310.71	578.15	400.00
Printing	- 11	83.08	222.15	225.00
Repairs	- 12	136.84	66.42	178.00
Special Supplies	- 13	1,034.51	737.74	250.00
Office & Adm. Expense	- 14	2,534.70	5,357.41	3,850.00
Equipment	- 15	490.00	398.25	600.00

2. PERSONNEL - Number in each rank	Sept. 1962	Sept. 1963	Sept. 1964
Director of Placement and Financial Aid Services	1	1	1
Assistant Director of Placement and Financial Aid Services	1	1	1
Placement Officer for Women	1	1	1
Placement Officer	1	1	1
Staff Assistant	-	1	1
Senior Clerk & Stenographer	2	2	2
Junior Clerk & Stenographer	2	2	2
Junior Clerk Typist	-	2	2

3. ORGANIZATION CHART


PRESIDENT
DEAN OF STUDENTS
DIRECTOR OF PLACEMENT & FINANCIAL AID SERVICES
Sr. Clerk & Stenographer
Supervision of:
Clerical Staff
Budget
Off. Supplies
Staff Assistant
Staff Assistant
Placement Officer
Placement Officer for Women
Sr. Clerk & Stenographer
Jr. Clerk Typist
Jr. Clerk Typist
Jr. Clerk & Stenographer
Jr. Clerk & Stenographer
RESPONSIBILITIES
Administration of loan and scholarship programs with individual student counseling re these programs
Administration of recruiter scheduling; male career counseling & placement in Bus. Ad. & Lib. Arts; Undergraduate Assistantship Program
Administration of male programs in teacher placement, part-time work, agri. placement, vets. affairs & military draft with counseling re these programs.
Administration of women's placement with career counseling of women, women's alumnae placement & women's part-time placement.
Overall responsibility and supervision. Budget responsibility for University loans and scholarship programs. Career counseling & placement of men's engineering & science career counseling.

4.

4. STUDENTS OR CLIENTELE

A. Students - We serve students in all categories of the campus - incoming freshmen, undergraduates in all schools and classes and graduate students - approximately 20,878 visits by students were made to the Placement & Financial Aid Services this year.

	1962-63	1963-64	1964-65
No. of Seniors served and counseled re career plans and job placement	1,291	1,184 served counsel.	(1,178 (995
No. of Seniors registered with Placement Service			1,097
No. of Grad. Students registered with Placement Service			135
Frosh,,Soph.,Jrs., counseled re. career plans (approx. figures)	150	250	250
Alumni served & counseled	150	205	150
Part-time student workers (See Appendix A)	1,879	2,039	2,273
Students counseled and/or served re loans (See Appendix B)	1,055	1,112	1,523
Students served re scholarships & financial aid (See Appendix C)	3,271	2,991	4,250
Students served and/or counseled re military draft (See Appendix D)	1,390	2,190	4,169
Veterans served (See Appendix D)	71	69	20 (50 war orphans)

B. (1) Clientele - Employment Recruiters (See Appendix E)

	1962-63	1963-64	1964-65
No. of representatives from industry	(not broken down for previous years)		302
No. of representatives from schools seeking teachers			136
No. of government representatives			46
No. of non-profit or social service agency representatives			4
TOTAL REPRESENTATIVES	496	475	488
Interviews held on campus	4,286	3,950	4,487

B. (2) Industrial representatives, employers from federal, state and local governments, and school administrators visit the office, telephone, write, wire giving information on jobs, company policy, aid to education, and request background information on seniors and former graduates.
Parents, incoming students, legislators, interested persons visit the office, telephone, write, wire, concerning scholarships, loans and part-time work.
Semi-accurate statistics indicate the following figures:

Incoming telephone calls	-	14,087
Incoming mail	-	45,412
Outgoing mail	-	413,213

5. PUBLICATIONS, RESEARCH GRANTS, RESEARCH PROJECTS, PROFESSIONAL ACTIVITIES

A. The Director taught a course in Personnel Management to 26 students in the School of Business Administration in the fall semester.

B. The Director and Mr. Terry attended a Placement & Financial Aid Conference of New England State University personnel at the University of Vermont.

C. Mr. Terry attended a portion of the Eastern College Personnel Officers Conference at Portsmouth, New Hampshire.

D. The Director and Miss Antunes attended the Eastern College Personnel Officers Workshop at Hartford, Connecticut.

E. The Director attended and participated in the College Scholarship Service meeting in New York City - also visited C.S.S. in Princeton, New Jersey.

F. Miss Antunes attended the Annual Vocational Conference of Advertising Women in New York City.

G. Mr. Emery gave a talk to the Agriculture Club.

H. The Director attended and chaired a panel at the American Personnel & Guidance Association Convention in Minneapolis, Minnesota.

I. Miss Antunes attended a Symposium on Careers for Women in Science and Engineering sponsored by M.I.T. at Cambridge.

J. Miss Antunes attended a Social Work Careers Program at Boston College.

K. Miss Antunes has spent many evenings in the girls' dormitories and at club meetings speaking about placement and giving group counsel.

L. The Director was given a faculty research grant for a study of student attitudes concerning financial aid.

M. Mr. Santner is continuing close coordination with the data processing centers for computation of need for scholarship and loan applications.

N. Miss Antunes attended New England Women's Placement Officers meetings at Simmons College and Boston University.

O. Miss Antunes accompanied three undergraduate scholarship holders to the annual meeting of the New England Farm and Garden Association.

P. The Director was quoted on the placement picture from the East Coast in The Journal of College Placement.

Q. Mr. Santner gave a lecture on financial aid administration to Mr. Burkhardt's Student Personnel Class.

R. The Director participated on invitation in the Financial Aid Workshop sponsored by the College Scholarship Service and held at Plymouth, Mass.

6. MAJOR ACCOMPLISHMENTS

A. With a shortage of staff (both professional and clerical) took care of a staggering load of students, recruiters, financial aid applicants.

B. Made improvements on Undergraduate Assistantship program.

C. Applied for and received project of Work-Study program under the Economic Opportunity Act of 1964.

D. Revised and revamped many form letters used in our function.

E. Perfected IBM program for computing need of scholarship and loan applicants.

7. SPECIAL PROJECTS

A. The financial aid questionnaire was returned from over 3,000 students and has been scored for IBM tabulation. Results should be soon forthcoming.

B. The Placement & Financial Aid Officers of the 6 New England State Universities are visiting our campus in August, and plans for this meeting are being developed.

8. FUTURE PLANS AND NEEDS

A. As requested in the budget report we are in need of additional clerical and professional help. Our services are becoming slipshod due to lack of people to handle all of the ramifications in which we are involved.

B. Our budgets in equipment and travel are far below our needs and requirements. We are repeatedly in a begging situation in these matters.

C. We are again in need of at least one new electric typewriter.

D. We are in need of additional space - our reading room for students is entirely inadequate as is our general office space.

E. We need <u>cleaner quarters</u> considering the public relations that this office engages in - note the number of visitors to the offices.

Appendix A

STUDENT PART-TIME EMPLOYMENT

	Women Working	Men Working	Total Students Working	Total Earnings
1962-63	903	1,497	2,400	$290,000
1963-64	905	1,379	2,284	$299,766(to Mar.1)
1964-65	1,007	1,266	2,273 (to Apr.1)	$401,588(to Apr.1)

$163,196. in grants $238,392. 03 funds Total $401,588.

July 1, 1964 to April 1, 1965

	1965	1966	1967	1968	Stockbridge and Special	Graduate Students
No. employed from each class	576	571	456	342	32	296
Total Earnings in each class.	$124,091.10	$61,877.27	$94,904.52	$25,310.99	$9,802.84	$85,602.20

Earnings	No. of Students	Percent Working
Percent and No. of students who earned over $600	112	5%
Percent and No. of students who earned over $500 but less than $600	52	2%
Percent and No. of students who earned over $400 but less than $500	81	4%
Percent and No. of students who earned over $300 but less than $400	127	6%
Percent and No. of students who earned over $200 but less than $300	268	11%
Percent and No. of students who earned over $100 but less than $200	526	23%
Percent and No. of students who earned less than $100	1,107	49%

Percent of total student body who had part-time employment = 21%

WORK-STUDY PROGRAM UNDER ECONOMIC OPPORTUNITY ACT OF 1964

Work-Study Assignments made	34
Total amount expended	$2,068.73

STUDENT AGE- TIME- EMPLOYMENT DATA

Women Participation	Men Participation	Total Students	Salary Expenditures
1962-63	80%	1,417	2,400	$240,000
1963-64	90%	1,319	2,142	$259,756(ex Par.1)
1964-65	1,007	1,266	2,273 (ex Apr.1)	$401,384(ex Apr.1)

$163,176. in grants $238,292. 23 Fields Total 1,401,562.

Jul 1, 1964 to April 1, 1965"

1965	1964	1963	1962	and Before	Classes
576	571	456	340	32	2031

Earnings in $124,041.10 $61,217.27 $3,807.84. $86,843.20.
classes. $94,904.39 $251,310.39

Participation	No. of Students	Percent Part. in
...cent and No. of students who	112	5%
...ned over $800		
...ed and No. of students who	52	2%
...ned over $300 but less than $800		
...ent and No. of students who	81	4%
...ned over $400 but less than $500		
...ent and No. of students who	127	6%
...ned over $300 but less than $400		
...ent and No. of students who	268	11%
...ned over $200 but less than $300		
...ent and No. of students who	516	23%
...ned over $100 but less than $200		
...ent and No. of students who	1,107	47%
...ed less than $100		

Percent of total student body who had participated = 21%

...-Study Activity Participation

...Total Enrollment ...

Appendix C

SCHOLARSHIPS, GRANTS-IN-AID, AND UNDERGRADUATE ASSISTANTS

	1962-63	1963-64	1964-65
A. Entering Freshmen			
No. of entering freshmen applying	1,450	1,850	2,800
No. granted to freshmen	100	215	241
Total amount in Scholarships	$40,751.00	$94,357.00	$116,953.00
Total amount in Grants-in-Aid	$6,174.00	$3,378.00	$3,761.00
B. Upperclass			
No. of applicants for Scholarships and Grants-in-Aid	700	1,006	1,450
No. of awards made in amounts ranging from $50 to $1,300	621	613	591
Total amount in Scholarships	$110,873.00	$163,200.00	$275,018.00
Total amount in Grants-in-Aid	$22,040.00	$17,430.00	$16,268.00
No. of Undergraduate Assistantships	-	314	324
Total amount in Undergrad. Assistantships	-	$105,800.00	$118,200.00
C. Summer Scholarships (1964)			
No. of awards	-	-	65
Amount of awards	-	-	$17,599
D. Total No. of applicants for scholarships	2,871	3,842	4,315
E. Total amount of scholarships, grants-in-aid and undergraduate assistantships	$179,838.00	$384,165.00	$474,111.00
F. Outside Scholarships			
No. of students receiving outside scholarships of which we are aware	800	1,311	1,176
Total amount of outside scholarships of which we are aware	$211,314.00	$435,496.00	$355,947.00

9	Graduate students	received		10	outside scholarships	amount	$3,310.00
113	Students in Class of	1965	received	157	"	"	$33,989.00
133	" " " "	1966	"	183	"	"	$42,211.00
146	" " " "	1967	"	199	"	"	$42,852.00
775	" " " "	1968	"	1,222	"	"	$233,585.00

Appendix B

LOANS

	1962-63	1963-64	1964-65
A. University Loans - Short Term			
Number Granted	146	132	136
Total Amount	$19,941.00	$20,048.00	$19,881.00
Average Amount Granted	$150.00	$152.00	$146.00
B. University Loans - Long Term			
Number Granted	34	34	22
Total Amount	$6,675.00	$10,195.00	$6,900.00
C. National Defense Education Act Loans			
Number Granted	500	529	691
Total Amount	$258,375.00	$273,200.00	$453,075.00
Average Amount Granted	$450.00	$516.00	$655.00
D. Graduate & Foreign Student Loans (Graduate students also receive NDEA Loans)			
Number Granted			21
Total Amount			$1,645.00
E. Nursing Student Loans (New program this year)			
Number Granted			1
Total Amount			$450.00
F. Massachusetts Higher Education Loans (HELP Loans through commercial banks after appropriate clearance through Placement & Financial Aid Office)			
Number Granted	375	417	652
Total Amount	$178,000.00	$203,966.00	$272,562.00
Average Amount Granted	$450.00	$489.00	$418.00
TOTAL NUMBER OF ALL LOANS	1,055	1,112	1,523
TOTAL AMOUNT OF ALL LOANS	$462,991.00	$507,409.00	$754,513.00

Appendix B

[illegible]

[illegible]	[illegible]	[illegible]	1964-65
A. Interest & Income - Short Term			
Number Granted		133	126
Total Amount	$[illegible]	$[illegible]	$[illegible]
Average Amount Granted	$[illegible]	$152.01	$146.10
B. Long-Term Loans & Long Term			
Number Granted	[illegible]	34	21
Total	$[illegible]	$10,105.00	$3,[illegible]
[illegible] Interest Subsidy Loans			
Number Granted	[illegible]	529	[illegible]
Total Amount	$[illegible]	$[illegible]	$[illegible]
Average Amount Granted	$[illegible]	$[illegible]	$[illegible]
[illegible] & Erosion Control Loans			
(No reference materials were found for this item.)			
Number Granted			21
Total Amount			$1,[illegible]
[illegible] Rehabilitation Loans			
(No program data found.)			
Number Granted			1
Total Amount			$[illegible]
[illegible] Development Loans			
(No program data found.)			
Number Granted	521	441	459
Total Amount	$17[illegible]	$[illegible]	$[illegible]
Average Amount Granted	$[illegible]	$[illegible]	$[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

Appendix D

VETERANS

	1962-63	1963-64	1964-65
TOTAL VETERANS ENROLLED	71	69	20 plus 50 War Orphans
Veterans enrolled under Public Law 550 (Korean War Vets)	45	30	20
Veterans enrolled under Public Law 894 (Disabled Veterans)	1	0	0
No. of students enrolled under Public Law 634 (War Orphans)	25	39	50

NOTE: All training under Public Laws 550 and 894 terminated on January 31, 1965. 20 veterans enrolled under Public Law 550 were affected.
The number of children of deceased veterans continues to rise.

MILITARY DRAFT

The office serves as a registration center for male students reaching their 18th birthday. 200 students registered for the draft here this year.

Forms (109 and 103) for student deferment have been completed in triplicate - one copy to draft board, one to student, one retained here as follows:

1962-63	1963-64	1964-65
1,390	2,190	4,169

REPORT ON THE CLASS OF 1964

The attached information relates to the after graduation plans of 1,156 members of the Class of 1964. From the students, from departments, and from employers, we have kept track of 83% of the Class.

Although repetitious from previous reports, we believe it worthwhile to mention again that in 1960 - 5% went on to graduate study; in 1961 - 12%; in 1962 - 18%; in 1963 - 17%; and again for the Class of 1964 - 17% (even though the classes are larger each year). 198 students from the Class of 1964 chose to continue their studies. Of these, 4 entered Dental School; 12 entered Law School; 5 entered Medical School; and 1 entered a Theological Seminary.

Other interesting facts include the following: 10 entered the Peace Corps; 196 or 17% entered the teaching profession. Non-teaching salaries for women ranged from $3,640 for a laboratory technician to $7,200 for a programmer. Non-teaching salaries for men ranged from $4,800 for a marketing position to $7,900 for an electrical systems design engineer. Teaching salaries ranged from $3,650 to $5,600. Sixty-five percent of the employed graduates are working in Massachusetts, 11% are in Connecticut, and 9% in New York State, while the remainder are located in 21 other states and overseas.

Fellowships and assistantships at 39 colleges and universities were granted to 71 graduates of the Class of 1964. Stipends ranged from $700 to $3,200.

In the College of Agriculture, 12% (9 out of 76) went on to graduate school.

In the College of Arts & Sciences, 22% (140 out of 620) went on to graduate school, and 14% (86 out of 620) accepted teaching positions.

In the School of Education, 73 accepted teaching positions in the elementary field. Only 2 went on to further study.

In the School of Business Administration, 9 continued their education.

In the School of Engineering, 27 went on to further study while the majority took engineering positions.

In the School of Physical Education, 44% (21 out of 48) went into teaching while 9 went on to further study.

In the School of Home Economics, 8 went into teaching.

In the School of Nursing, the majority have again gone into staff nursing.

In the Stockbridge School of Agriculture, 14% (23 out of 166) went on to further study.

		Further Study	Non-Teaching Jobs	Teaching	Military Services	Plans Pending or Seeking Jobs	Unknown
College of Agriculture							
Male Grads	76	9	28	1	13	4	21
Female Grads	0	0	0	0	0	0	0
Total	76	9 (12%)	28 (37%)	1 (1%)	13 (17%)	4 (5%)	21 (28%
College of Arts & Sciences							
Male Grads	353	104	54	25	37	29	104
Female Grads	267	36	51	61	1	112	6
Total	620	140 (22%)	105 (17%)	86 (14%)	38 (6%)	141 (23%)	110 (18%
College of Education							
Male Grads	0	0	0	0	0	0	0
Female Grads	100	2	0	73	0	17	8
Total	100	2 (2%)	0	73 (73%)	0	17 (17%)	8 (8%)
School of Physical Education							
Male Grads	25	7	0	8	4	4	2
Female Grads	23	2	3	13	0	5	0
Total	48	9 (19%)	3 (6%)	21 (44%)	4 (8%)	9 (19%)	2 (4%
School of Business Administration							
Male Grads	114	9	40	1	17	6	41
Female Grads	5	0	0	4	0	0	1
Total	119	9 (7%)	40 (34%)	5 (5%)	17 (14%)	6 (5%)	42 (35%
School of Engineering							
Male Grads	128	27	85	0	12	4	0
Female Grads	1	0	0	1	0	0	0
	129	27 (21%)	85 (66%)	1 (1%)	12 (9%)	4 (3%)	0
School of Home Economics							
Male Grads	0	0	0	0	0	0	0

		Further Study	Non-Teaching Jobs	Teaching	Military Services	Plans Pending or Seeking Jobs	Unknown
School of Nursing							
Male Grads	0	0	0	0	0	0	0
Female Grads	21	0	9	0	1	11	0
Total	21	0	9 (43%)	0	1 (4%)	11 (52%)	0
Department of Public Health							
Male Grads	7	1	2	1	0	0	3
Female Grads	2	0	0	0	0	0	2
Total	9	1 (11%)	2 (22%)	1 (11%)	0	0	5 (55%)
Totals							
Male Grads	703	157	209	36	83	47	171
Female Grads	453	41	72	160	2	158	20
Total	1156	198 (17%)	281 (24%)	196 (17%)	85 (7%)	205 (18%)	191 (17%)
Grand Totals							
Graduates	1156	198 (17%)	281 (24%)	196 (17%)	85 (7%)	205 (18%)	191 (17%)

PROFESSIONAL SCHOOLS: Dental - 4; Law - 12; Medical - 5; Theological - 1. PEACE CORPS: 10

Stockbridge School of Agriculture		Further Study	Non-Teaching Jobs	Teaching	Military Services	Seeking Jobs	Unknown
Male Grads	161	21	51	0	11	7	71
Female Grads	5	2	3	0	0	1	0
Total	166	23 (14%)	54 (32%)	0	11 (6%)	8 (5%)	71 (43%)

LOCATION OF NON-TEACHING EMPLOYMENT BY STATES

State	Women	Men	State	Women	Men
California	0	3	New Jersey	1	3
Colorado	0	1	New York	5	25
Connecticut	13	23	North Carolina	0	1
Florida	0	1	Ohio	0	2
Hawaii	1	0	Pennsylvania	2	7
Illinois	0	2	Rhode Island	2	0
Maryland	3	3	Texas	0	1
Massachusetts	30	28	Washington, D.C.	4	2
Michigan	1	1	West Virginia	1	0
Minnesota	0	1	Overseas (including Peace Corps)	9	3
New Hampshire	0	2			

LOCATION OF TEACHING EMPLOYMENT BY STATES

State	Women	Men	State	Women	Men
California	7	0	New Hampshire	1	2
Connecticut	15	2	New Jersey	1	0
Florida	2	0	New York	8	3
Maine	0	1	Ohio	2	0
Maryland	3	0	Pennsylvania	1	0
Massachusetts	13	2	Rhode Island	1	0
Georgia	1	0	Vermont	1	0
Hawaii	1	0	Washington, D.C.	1	0
Illinois	1	0	Overseas	0	2
Indiana	1	0			

TOTAL LOCATION OF EMPLOYMENT BY STATES

State		State	
California	10	Minnesota	1
Colorado	1	New Hampshire	5
Connecticut	53	New Jersey	5
Florida	3	New York	41
Georgia	1	North Carolina	1
Hawaii	2	Ohio	4
Illinois	3	Pennsylvania	10
Indiana	1	Rhode Island	3
Maine	1	Texas	1
Maryland	9	Vermont	1
Massachusetts	34	West Virginia	1
Michigan	2	Washington, D.C.	7

Fellowships and Assistantships
Class of 1964

Name	Major	Grants	Institution	Amount
lbro, Robert B.	Economics	Woodrow Wilson Fellowship	University of California (Berkeley)	
llard, Francis X.	German	Woodrow Wilson Fellowship	Stanford University	
llen, Susan P.	Botany	Assistantship	Southern Illinois University	$1800
wdycki, John T.	Accounting	Assistantship	University of Massachusetts	
Baker, Lois	English		City College of New York	
Barnes, Dorothy	Sociology	Fellowship and Northampton Zonta Club Award	Columbia University	$2200 $ 200
Bezrek, Diane	English		University of Massachusetts	
Bleiler, Linda A.	Speech	Assistantship	University of Massachusetts Clarke School	$2000
Boland, Kathleen A.	English	Fellowship	University of Massachusetts	$1800
Brine, Susan	Medical Technology	Assistantship and Federation of Women's Clubs of Massachusetts Scholarship	University of Massachusetts	$1500
Childs, John B.	Sociology	Assistantship	University of Massachusetts	
Clark, Charles B.	Civil Engineering	Research Assistantship	Massachusetts Institute of Technology	
Cote, Paul J.	Physics	Assistantship	Rensselaer Polytechnic Institute	$2200
lark, Constance	Spanish	Assistantship	University of Wisconsin	$2000

Name	Major	Grants	Institution	Amount
Cox, Carol	Psychology		Katharine Gibbs	
Curto, Anthony W.	Civil Engineering	Research Assistantship	Massachusetts Institute of Technology	$370 mo
Damasio, Cecilia	Portuguese-Spanish		University of New Mexico	
Darlow, Richard W.	Forestry	Assistantship	University of Massachusetts	
Del Vecchio, Joseph	Government	Massachusetts Senior Internship in Public Administration	University of Massachusetts	
Doktor, Joan F.	History	Fellowship	Columbia University	$3800
Doyle, Mary P.	History	Assistantship	University of Wisconsin	$ 700
Ekberg, Leslie E.	English		University of Massachusetts	
Evans, Donald E.	Economics	Assistantship	University of Massachusetts	
Fiore, Robert B.	Forestry	Assistantship	North Carolina College	
Ferrigno, Deena	Speech	Assistantship	University of Michigan	
Fitzgerald, Susan	Government		Institute for Foreign Trade	
Foster, David C.	Civil Engineering	Research Assistantship	Massachusetts Institute of Technology	
Goldthwaite, Jonathan	Botany	Assistantship	University of California	
Greenwood, David F.	Civil Engineering	National Science Industrial Trainee	Tufts University	
Harrington, Stephen	Physical Education	Assistantship	Michigan State University	
Harron, Janet	Psychology	Fellowship	University of Massachusetts	$2000
Hastings, Donna	Sociology	National Mental Health	University of Connecticut	$1800

Name	Major	Grants	Institution	Amount
Heine, Ilona P.	Food Technology		Long Beach California State College	
Horstman, Charles H.	Civil Engineering	Research Assistantship	Massachusetts Institute of Technology	
Howard, Philip A.	Government	Assistantship	University of Maryland	
Hurlburt, Richard B.	Plant Soil	Assistantship	University of Massachusetts	
Jenkins, Steven L.	English	Assistantship	University of Pittsburgh	$1900
Jordan, Bruce I.	Physical Education	Assistantship	Penn State	
Kline, Carol J.	Psychology	Assistantship	University of Maryland	$2200
Kupfer, Dorothy G.	Microbiology	National Science Foundation Grant	University of Massachusetts	$2400
Labine, Paul	Chemical Engineering	Assistantship	Michigan State University	
Lambert, Judith	Premedical		University of Rochester-Medical School	
Lang, Beverly	Medical Technology		Medical Technology School	
Leger, Pamela	Economics	Woodrow Wilson Fellowship	Cornell University	$1800
Makarewicz, Joan F.	Psychology		Springfield College	
Medeiros, James A.	Government	Massachusetts Public Administration	University of Massachusetts	
Mello, Nancy A.	Psychology	Assistantship	State University of Iowa	
Melnick, Kathryn	Education		Harvard University	
Miller, Nelson L.	Floriculture	Assistantship	University of Delaware	
Morisrty, John F.	Economics	Assistantship	University of Massachusetts	
Morris, Alfred E. Jr.	Physical Education	Assistantship	University of Maryland	

PEACE CORPS

1964 Graduates

Men

Anthony F. Amico - Psychology

Robert S. Ostrowski - Psychology

Brian P. Richardson - Mechanical Engineer

Women

Leona Kelly - History

Judith E. Rosenthal - Education

Patricia Shoughrue Trudeau - Sociology

Sally Ann Winters - Sociology

Jo Anne V. Zywna - English

Beverly Ann Carlson - English

Joan Labuzoski - English

Type of Position	Women		Men	
	High	Low	High	Low
Accountant	$6000	$---	$6300	$5200
Junior Accountant	$---	$---	$6800	$6600
Programmer	$---	$---	$6800	$5280
Advertising, Executive Trainee	$4160	$---	$---	$---
Bacteriologist	$---	$---	$10,908	$---
Bank Clerk	$3380	$---	$---	$---
Chemist	$6100	$---	$7200	$6600
Research Analyst	$---	$---	$7596	$---
Research Chemist	$---	$---	$8400	$6200
Technical Representative	$7000	$---	$---	$---
Computer, Assistant Operator	$6500	$---	$---	$---
Programmer	$---	$---	$7320	$5200
Credit Manager	$---	$---	$4800	$---
Data Processing	$---	$---	$6300	$---
Dietetic Intern	$4489	$---	$---	$---
Engineers				
Chemical Engineers	$---	$---	$7800	$5640
Laboratory Engineer	$---	$---	$7500	$---
Research Analyst	$---	$---	$7596	$---
Technician	$---	$---	$7215	$---
Civil Engineers	$---	$---	$7200	$5400
Engineering Assistant	$---	$---	$6720	$---
Junior Civil Engineer	$---	$---	$7440	$7428
Electrical Engineers	$---	$---	$9396	$5640
Electronics Engineer	$---	$---	$6800	$---
Field Engineer	$---	$---	$7560	$---
Junior Engineer	$---	$---	$7956	$---
Logical Design	$---	$---	$8400	$---
System Designing	$---	$---	$9396	$7900
Industrial Engineers	$---	$---	$8040	$7200
Management Trainee	$---	$---	$7200	$---
Mechanical Engineers	$---	$---	$9048	$6080
Analytic Engineer	$---	$---	$7200	$---
Design Engineer	$---	$---	$7320	$---
Experimental Engineer	$---	$---	$7200	$---
Engineer Trainee	$---	$---	$7176	$---
Junior Engineer	$---	$---	$7000	$---
Management Trainee	$---	$---	$7380	$---
Mechanical Design	$---	$---	$9048	$---
Sales Engineer	$---	$---	$7800	$---
Test Engineer	$---	$---	$7000	$---
Food Management Specialist	$3800	$---	$---	$---
Hospital Admitting Officer	$4800	$---	$---	$---

(continued)

Type of Position	Women		Men	
	High	Low	High	Low
Insurance, Actuarial Analyst	$5200	$---	$6192	$---
Assistant Supervisor, Reinsurance	$4800	$---	$---	$---
Claims Adjuster	$---	$---	$5700	$5004
Field Services Representative	$4800	$---	$5500	$5402
Group Claims Worker	$3800	$---	$---	$---
Group Underwriter	$4700	$4320	$---	$---
Planner	$---	$---	$5800	$---
Proposal Writer	$3800	$---	$---	$---
Laboratory Technician	$4160	$3640	$5400	$---
Landscape Architect	$4800	$---	$---	$---
Librarian, Assistant	$5200	$3800	$---	$---
Management	$---	$---	$6600	$5200
Management Trainee	$---	$---	$6600	$---
Marketing	$---	$---	$6600	$4800
Assistant Manager	$---	$---	$6600	$5720
Newspaper Reporter	$---	$---	$3840	$---
Nurse	$6090	$3848	$---	$---
Overseas Banking Trainee	$---	$---	$6040	$---
Programmer	$7200	$4524	$5200	$---
Physicist	$---	$---	$7440	$---
Environmental Test Engineer	$---	$---	$6500	$---
Psychometrist	$4004	$---	$---	$---
Recreation Specialists	$6215	$5000	$---	$---
Research Assistant, Economics	$5500	$---	$---	$---
Mathematics	$5316	$---	$---	$---
Zoology	$4160	$---	$---	$---
Retailing, Executive Trainee	$4680	$3800	$---	$---
Salesman	$---	$---	$7800	$6240
Secretary (part-time)	$3328	$2850	$---	$---
Service Representative	$4260	$3800	$---	$---
Social Worker	$5600	$4700	$---	$---
Speech Therapist	$5000	$4600	$---	$---
Systems Engineer	$---	$---	$6840	$---
Transportation Trainee	$---	$---	$7380	$---

(continued)

Type of Position	Women		Men	
	High	Low	High	Low
United States Government				
NASA	$5000	$---	$---	$---
NSA, Analyst	$6000	$---	$---	$---
Russian language analyst	$---	$---	$7030	$---
Health, Education & Welfare				
Correspondence Clerk	$5000	$---	$---	$---
Labor, Research Analyst	$5000	$---	$---	$---
Navy, Classifier	$6000	$---	$---	$---
Social Security Examiner	$---	$---	$5400	$---
USAF, Lieutenant	$4200	$---	$---	$---
U.S. Army Nurse	$6000	$---	$---	$---
Zoologist, overseas	$3500	$---	$---	$---
Teaching				
Art	$4850	$4700	$4992	$---
Sciences, general	$5000	$4400	$---	$---
Chemistry, private school, part-time	$3800	$---	$---	$---
Elementary, all grades	$5600	$4000	$4600	$---
Nursery School	$4000	$---	$---	$---
Secondary				
Chemistry	$---	$--	$4600	$4500
English	$5600	$3650	$6000	$4404
German	$4800	$---	$4500	$---
Government	$4700	$---	$---	$---
History	$5600	$4700	$---	$---
Home Economics	$4900	$4600	$---	$---
Mathematics	$5000	$4500	$5300	$4300
Mathematics-Physics	$4600	$---	$---	$---
Physical Education	$5600	$4500	$5700	$4500
Spanish	$4700	$---	$---	$---
Speech	$4800	$---	$---	$---
Zoology	$---	$---	$5100	$4500

UNIVERSITY OF MASSACHUSETTS

Amherst, Massachusetts

ANNUAL REPORT

(July 1, 1964 - June 30, 1965)

John C. Weldon

Director

May, 1965

GENERAL INTRODUCTION

The Housing Office has undergone vast changes and improvements during the fiscal year of 1965. The staff load has increased two-fold during this year in respect to the normal increase of the total student enrollment. The office has been given the opportunity to undertake new ventures with added responsibility in furthering the educational processes of the student body of the University. Our staff numbers remain the same while our responsibilities grow many fold. The Housing Office Staff has willingly undertaken these new tasks with both gratefulness and enthusiastic accord.

Knowing full well that the staff population has remained relatively the same as it was during the past fiscal year, the members have enthusiastically accepted new and challenging duties in the overall fulfillment of their daily tasks. We openly seek more responsibility and continued increases in the amount of tasks that we are given to perform. It would seem that no matter is unimportant when it concerns the general welfare of the total student population of the University. We are in business to serve the student body and this we will continue to do as the years go by. The staff members would hope that with increased functions more staff positions would be added to the responsibilities with an eventual ease of every day operation. The Housing Office expects to receive an ever-increasing amount of student contact in the year to come.

I. APPROPRIATION for the Fiscal Years 1962-63, 1963-64, 1964-65:

1962-63 = Under Treasurer's Budget

1963-64 = $1,265.00

1964-65 = $3,045.00

II. PERSONNEL:

A. September 1962

Rank	Number in Position
Housing Supervisor	1
Housing Officer	1
Asst. Housing Officers	2
Jr. Clerk Stenographer	1

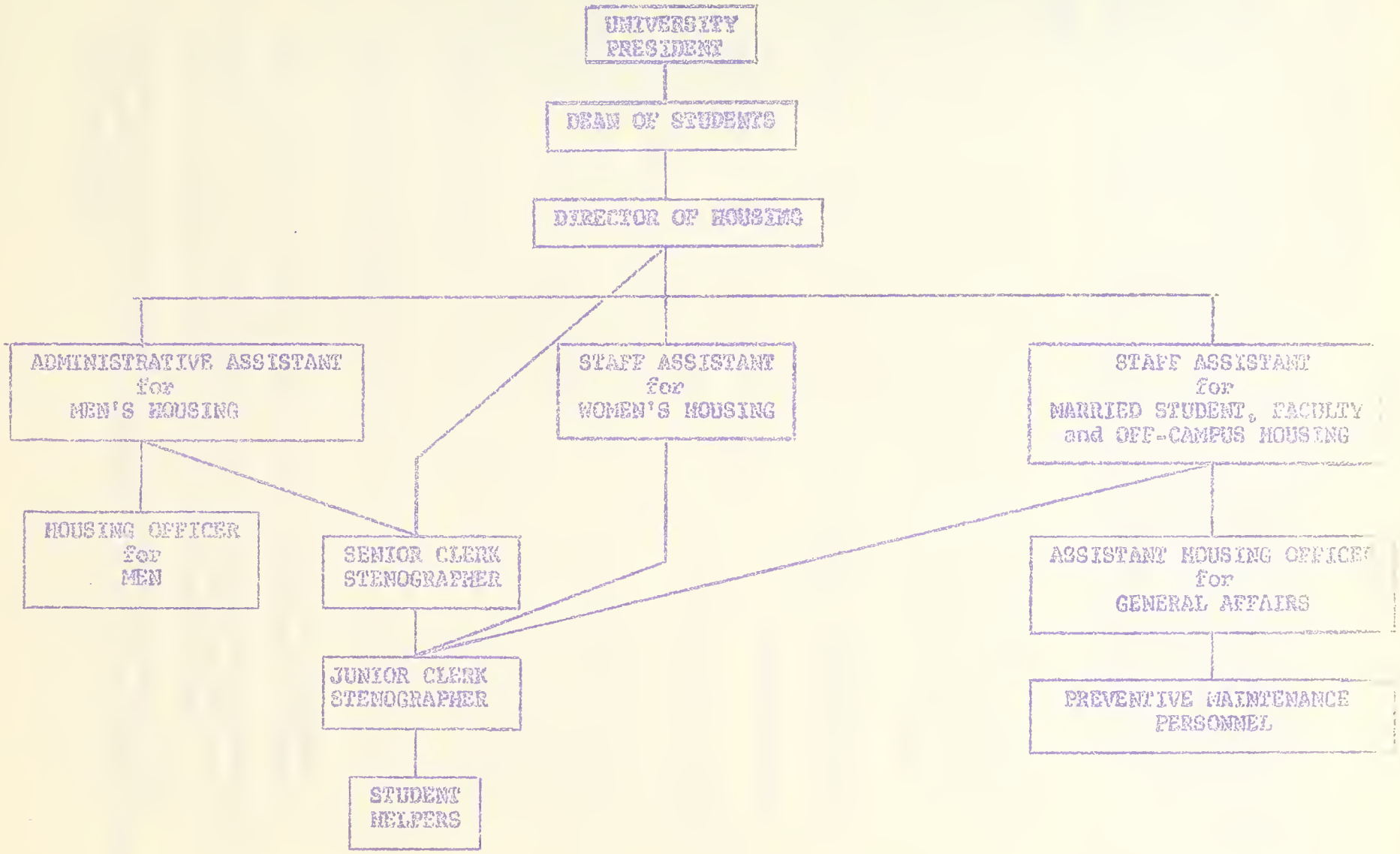
B. September 1963

Rank	Number in Position
Director of Housing	1
Staff Assistants	2
Administrative Assistant	1
Assistant Housing Officers	2
Senior Clerk Stenographer	1
Junior Clerk Stenographer	1

C. September 1964

Rank	Number in Position
Director of Housing	1
Staff Assistants	2
Administrative Assistant	1
Housing Officer	1
Assistant Housing Officer	1
Senior Clerk Stenographer	1
Junior Clerk Stenographer	1

HOUSING OFFICE
ORGANIZATIONAL CHART


UNIVERSITY PRESIDENT
DEAN OF STUDENTS
DIRECTOR OF HOUSING
ADMINISTRATIVE ASSISTANT for MEN'S HOUSING
STAFF ASSISTANT for WOMEN'S HOUSING
STAFF ASSISTANT for MARRIED STUDENT, FACULTY and OFF-CAMPUS HOUSING
HOUSING OFFICER for MEN
SENIOR CLERK STENOGRAPHER
ASSISTANT HOUSING OFFICER for GENERAL AFFAIRS
JUNIOR CLERK STENOGRAPHER
PREVENTIVE MAINTENANCE PERSONNEL
STUDENT HELPERS

STUDENTS AND/OR CLIENTELE

The Housing Office serves all students, staff and faculty members during the period of one academic year with respect to undergraduate housing needs, graduate housing needs, married student housing needs, and faculty and staff housing needs. The Housing Office has either screened or seen in excess of 9,000 individuals during the fiscal year of 1965 for various reasons. We have screened the applications for room assignments for over 6,000 undergraduate students and we have seen and accommodated over 3,000 graduate students, staff and faculty members in their search for on or off-campus housing accommodations.

FUNCTIONS

I. Screened applications for some 1300 female freshman students.

II. Screened applications for some 1300 male freshman students.

III. Screened applications for re-entering, transfer, exchange, Stockbridge and Foreign students.

IV. Screened applications for over 500 students, staff and faculty seeking accommodations in university-owned apartment units.

V. Entire staff assisted in the planning of newly proposed residence hall areas for the University Campus.

VI. Much of the staff participated in the selection of new items of furnishings and equipment for the renovations projects of many traditional University residence halls.

VII. Four members of the Housing Office Staff participated in two general periodic inspections of student rooms and public areas in all University residence halls.

VIII. Formulating and processing of residence hall furnishings and equipment inventories for 30 residence halls throughout the University Campus.

IX. Assisting in the housing of more than 9,000 non-student individuals for various educational conferences held throughout the fiscal year on the University Campus.

X. Supervised and coordinated the room reservation procedures for some 6,500 continuing men and women undergraduate students.

XI. Assisted over 20 fraternities and sororities totaling some 800 students in establishing procedures and clearance for moving from the residence halls to individual chapter houses.

XII. Transmitted to the Treasurer's Office board and room billing information for over 8,000 students, both four year undergraduates and Stockbridge.

XIII. Conducted counseling interviews with approximately 1650 students, both graduate and undergraduate.

XIV. Developed and put into service a pre-punched student billing card for use by the data processing department. Also, developed a student personnel record kardex file card on which data processing records student name, home address and local addresses.

XV. Devised many new forms for Housing Office and Treasurer's Office use thus reducing the total number of forms normally used by at least one-half. These include student billing cards, housing information cards, apartment application cards, apartment occupancy cards and apartment vacancy cards.

XVI. Conducted two concurrent surveys dealing with faculty, staff, graduate students and undergraduate students to determine the housing needs of these individuals for the immediate and near future. The results of these two surveys are at the moment being tabulated for final distribution and publication.

XVII. Daily contact with students, staff and faculty seeking off-campus accommodations. This figure is estimated to be 4,000+.

XVIII. Received information, handled, and processed over 900 work requests concerned with university-owned apartments, residence halls, and, our office building, Draper Hall.

XIX. Continually encouraged off-campus apartment development within the surrounding area to meet the University's growing needs.

XX. Ordered, delivered and kept file on some 7,000 keys for general student use in the residence hall programs.

XXI. Scheduled 500 bus trips in and out of the State of Massachusetts and kept records of same. This totals in value $16,671.33.

XXII. Handled traffic direction to registration points for the above mentioned numerous conferences.

XXIII. Inspected over 90 university-owned apartments for the purpose of refurbishing prior to new occupancy.

XXIV. Maintained, supplied and issued all blankets and linen used by conference groups other than special contract arrangements. Continued to maintain University telephone office and various rest rooms throughout campus with linen.

XXV. Continued to develop better public relations between town and gown.

STAFF RESPONSIBILITIES

I. Junior Clerk Stenographer - Miss Susan Wanat. Acts as unofficial receptionist for the general Housing Office. Sees to the secretarial needs of at least two staff members of the Housing Office which includes stenographic and typing duties for correspondence, forms, etc. On occasion aids individuals seeking off-campus accommodations. Also operates mimeograph machine for forms to be duplicated by entire office staff. Assists in other secretarial duties.

II. Senior Clerk Stenographer - Miss Blanche Daj. Handles all secretarial needs of Housing Office Director and Administrative Assistant that includes reproducing of various Housing Office forms, correspondence and greeting individuals who are seeking one of the two above individuals. Supervises other secretaries and various part-time student helpers. Handles the billing procedures for all university-owned dwellings. Acts as official secretary to the Foreign Student Advisory Board at the University. Maintains all general office files and up-dates same. Acts as general receptionist for all individuals seeking information of the Housing Office and takes over duties of various personnel staff members who are absent from time to time. Has full knowledge of entire office procedures.

III. Two Temporarily Assigned Preventive Maintenance Personnel Members. Handle the inventory checking and marking of all new furnishings received for residence halls by the University. Perform preventive maintenance functions within the Orchard Hill Complex. This seems to be a never ending task.

IV. Assistant Housing Officer - C. R. Holden. Supervises the previously mentioned preventive maintenance personnel staff. Handles all University residence hall key inventory and requests. Takes care of conference direction signs to registration points throughout the campus. Maintains continual preventive maintenance for Housing Office Staff vehicles. Continually inspects all university-owned apartments for needed renovations and repairs. Performs other tasks within the Housing Office structure as other office staff members deem necessary. Maintains and keeps up to date all University residence hall directory boards. Schedules all University field trip arrangements for various educational classroom functions. Maintains, supplies, issues and orders cleaning and replacements for all blankets and linen used by various conference groups. Supplies telephone offices and some rest rooms with linen service.

V. Housing Officer - William Hanlon. Conducts annual inventories for all University residence halls and University Housing Office equipment and furnishings. Assists in the procedural assignments of all men residents. Is responsible for repairs and improvements to men's residence halls. Assists the conference office in the continual need for accommodations for various conferees throughout the calendar year. Aids off-campus housing staff assistant in helping students to find off-campus Summer accommodations. Assists in periodic inspection of student rooms and public areas in residence halls.

VI. Staff Assistant in Charge of Married Student, Faculty and Staff Housing - Robert E. Van Vliet. Handles accommodations for all graduate students, staff, faculty and married undergraduate students seeking on or off-campus apartment accommodations. Is mainly responsible for the additions and corrections of present and new Housing Office forms. Is responsible for reporting of Housing Office budgetary conditions. Has conducted general overall survey of the University population aimed at determining needs of students, staff and faculty for future housing accommodations. Is responsible for much of the Housing Office town and gown relationships. Interviews and accommodates some 4,000 individuals per annum concerned with housing information. Assists in the planning of the philosophical views for future residence hall areas.

VII. Staff Assistant for Women's Housing - Jan Lee Clement. Handles accommodations for all undergraduate female students. Handles much of the accommodations for female graduate students. Has direct liaison communication between the Housing Office and the Office of the Dean of Women. Is responsible for repairs and improvements to University residence halls. Is mainly responsible for the preparation of a general Housing Office brochure to be issued within the coming fiscal year. Supervises the room reservation procedures for all on-campus undergraduate female students. Assists in the planning of future student residence hall construction. Unavoidably adds her charm to the overall office operation.

VIII. Administrative Assistant - Frank B. Thomas. Handles all accommodations for undergraduate male students. Assists the Dean of Men's Office in assignments for fraternity housing. Acts as overall assistant to the Director of Housing. Has full knowledge of complete office operation. Is responsible for the coordination of efforts concerned with the computerization of all Housing Office records. Has daily contact with a multitude of undergraduate male students concerned with various room information and roommate problems. Is the direct liaison with the Dean of Stockbridge School for all of the agricultural on and off-campus students. Is solely responsible for the recent computerization of student room card forms. Assists in the planning of future University residence hall programs and construction.

IX. Director of Housing - John C. Welles. Is responsible for the total operation of the University Housing Office. Coordinates all functions of same. Encourages contact with student groups and directs Housing Office philosophies toward future residence hall planning and construction.

MAJOR ACCOMPLISHMENTS DURING THE FISCAL YEAR 1964-65

I. The opening of the Orchard Hill residence hall complex.

II. The careful planning and coordination of the future of the Southwest Quadrangle.

III. Responsible for the initial phases of planning for the Northwest Residence Hall Complex.

IV. Responsible for the Housing Office general survey soon to be published. (This includes the polling of faculty, graduate students and undergraduate students concerning their needs for the future about housing needs of the University.)

V. The continual growth in the area of data processing for more accurate and complete record keeping.

VI. Accommodating well over a total of 12,000 individuals without increases in staff membership.

SPECIAL PROJECTS

I. The developing of and circulating of a Housing Office survey to tap the needs of our greater University community.

II. The inception of new data processed housing forms.

III. The coordination with certain interior decorator firms and The University of Massachusetts Building Authority architectural representatives for the conception and final operation of the Orchard Hill residence hall complex, better known as the Residential College.

IV. The development of an overall University of Massachusetts Housing Office Brochure to include all aspects of faculty, staff and student housing.

FUTURE PLANS AND NEEDS

The first and foremost need of the present Housing Office structure is an overall increase in staff membership to accommodate all the functions that have been on-going for many years. The Housing Office is continually interested in the eventual operation of an educational residence hall system to be guided by the Housing Office staff members. It is with clear mind and far reaching judgement that we conclude that the educational environment of the greater University student body can best be enhanced by a program that entwines both the residence halls and the University classrooms. In order to accomplish these ends it is felt that the University Housing Office can both train and educate certain personnel individuals to reach these ends. It is hoped that within the near future the University of Massachusetts will become one of the leading state institutions in the United States in student personnel work in higher education. It is further hoped that the University of Massachusetts might one day become a major training center for higher education student personnel students who will embark upon a career of satisfaction and enlightenment. Students' needs, generally, are first met in the dining hall, in the residence hall and in the surrounding areas. If the University can coordinate these various activities into what might be termed an extensive arm of the classroom, students will have benefited greatly from the overall experience.

APPENDIX

APPENDIX

HOUSING OFFICE BUDGET RECAPITULATION AND PREDICTION

Because of the increased student population and the increased faculty needs the Housing Office felt that it was important to include herewith a copy of past, present and future budget requests and allocations to show the reasons for and needs for certain monies and manpower for continual and efficient operation.

The following data will serve as guidelines to the entire annual report to show the reader what the Housing Office has done in the past, what the Housing Office is doing presently, and what we must do in the future to accommodate the immediate growth in our student population. Mention should be made at this point that the University President has recently stated that the population of the University in 1975 may reach 25,000 students. The Housing Office does not operate under the premise that for so many hundred students we should anticipate so many new staff members. The only real need is to be able to adequately handle all students no matter what the number might be. It is not generally known to be proportionate. The following figures merely point out how the University Housing Office has, does, and wishes to proceed with its operation.

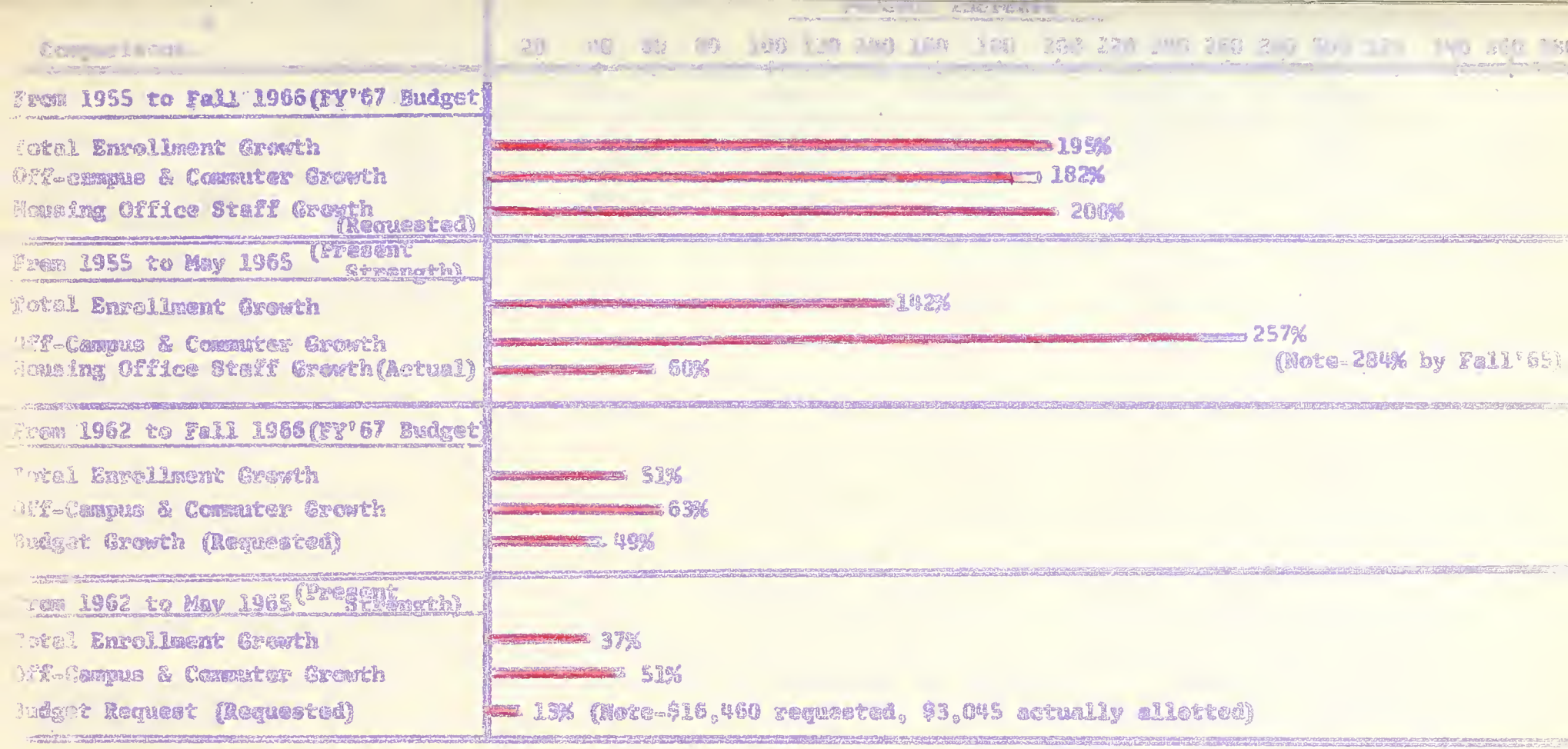
Respectfully submitted,

John C. Welles

John C. Welles
Director of Housing

JCW:bmb

Description:
U-Undergraduate & Stockbridge
G-Graduate
B-Dt campus Beds & Apts.
C-Commuter or Off-Campus
F-Fraternity or Sorority
0%
25%
50%
75%
100%
125%
150%
175%
200%
225%
1955
1962
1963
1964
1965
1966
1967
1968
U-94%
G-6%
B-65%
F-10%
C-25%
U-88%
G-12%
B-58%
F-6%
C-36%
U-81%
G-19%
B-42%
F-7%
C-51%
U-82%(10,497)
G-18%
B-54%
F-7%
C-39%
U-85%(11,525)
G-15%
B-54%
F-7%
C-39%
U-80%
G-20%
B-68%
F-7%
C-25%
U-79%
G-21%
B-69%
F-6%
C-25%



*Comparisons of data in all projections is based on the following assumptions:

1. Enrollment projections are from the Office of Institutional Studies report of 11/64.
2. Number of beds available on campus do not reflect possible tripling.
3. 237 beds in County Circle will be retired from student use by Summer '66.
4. 290 beds in Lewis and Butterfield will be retired from student use for one year starting Summer '66 because of renovations.
5. 50 Married Apartments in County Circle will be retired from student use by Summer '66.
6. Number of beds on campus has been increased by the number of married student apartments. Some of these apartments will probably be rented to faculty. Figures do not include University Apartments.
7. Budget figures shown are for the academic year actually spent, not the fiscal year requested.

Summary of Data

Fall of:	1955	1962	1963	1964 (NOW)	1965 (NEXT FALL)	1966 (FOLLOWING FALL)	1967
Total Stud. Enrollment	4341	7676	8811	10,497	11,525	12,835	14,300
#Beds on Campus + # Stud. Apts. (% of Tot.	2837 (65%)	4475 (58%)	4475 (51%)	5763 (55%)	6497 (56%)	8800 (68%)	9890 (69%)
#Living in Frat. or Sor.-Rough Estimate (% of total)	400 (10%)	600 (8%)	700 (7%)	800 (7%)	800 (7%)	900 (7%)	1000 (6%)
#Off-Campus & Commuter (% of Total)	1104 (25%)	2601 (34%)	3736 (42%)	3934 (1) (38%)	4228 (1) (37%)	3135 (25%)	3510 (25%)
Percent Enrollment Growth Since 1955	0	76%	102%	142%	165%	195%	230%
Percent Off-Campus & Commuter Growth Since 1955	0	136%	239%	257% (1)	284% (1)	182%	219%
Percent Enrollment Growth Since 1962	-	-	15%	37%	53%	68%	87%
Percent Enrollment Growth Over Preceding Year-Since 1962	-	-	15%	19%	10%	11%	11%
Number of Positions Within Housing Office	01 Men-4 01 Sec.-1 Tot. - 5 Act.	01 Men-4 01 Sec-1 Tot. - 5 Act.	01 Men- 3 01 Sec- 2 02 Prof-3 (2) Total - 8 Actual	01 Men -3 01 Sec -2 02 Prof-3 Total - 8 Actual	01 Men - 4 01 Sec.- 4 (4) 02 Prof- 4 (3) Total - 12 Req.	01 Men - 4 01 Sec.- 6 (3) 02 Prof- 5 Total - 15 Req.	?
Percent Increase in Housing Office Staff Since 1955	0	0	60%	60%	140%	200%	?
Gross Housing Office Budget Request (Amount Received)	?	$14,618 (?)	$14,618 ($ 1,265)	$16,460 ($ 3,045)	$16,370 (5) (?)	$21,779 (?)	?
Percent Gross Budget Request Since 1962	-	-	0%	13%	12%	49%	?
Amount Requested Per Student (Amount Rec'd)	?	$1.90 (?)	$1.66 (.14)	$1.56 (.29)	$1.42 (?)	$1.69 (?)	?

(1) Presently, there is one Staff Asst. responsible for developing programs and administering the housing needs of over 1/3 of the student body. Add. duties are to manage University-owned Apts. and assist faculty to obtain housing.

(2) Women's Staff Asst. position was not necessarily an addition. Responsibility was transferred from the Dean of Women without secretarial help.

(3) Increase in positions shows number of persons required to "catchup" with increased enrollment. Also # of positions to do the work is not necessarily in direct proportion to student enrollment.

(4) Only one addit'l secretarial position was originally requested for Summer '65 (FY '66 Budget). A recent revision requests one other secretarial position commencing July '65.

(5) Budget last year was conservative and assumed that the H. O. would receive most of monies requested.

Annual Report

Office of Admissions and Records

July 1, 1964 - June 30, 1965

1. Expenditures and Appropriations

Purpose	Expenditures 1963	Expenditures 1964	Allotment 1965
01 Salaries, Permanent	========	==========	==========
02 Salaries, Other	========	==========	==========
03 Services, Non-Empl.	2,168.11	6,382.82	11,347.00
10 Travel	962.79	1,568.96	2,825.00
11 Advert & Print	1,390.50	1,952.84	1,800.00
12 Maint & Repro	151.27	166.33	170.00
13 Special Supplies	681.83	4,003.67	2,700.00
14 Office & Admin.	9,108.30	9,633.93	5,880.00
15 Equip.	1,247.53	445.00	3,200.00
16 Rentals	========	360.00	5,360.00
Totals	15,710.33	20,513.55	33,282.00

2. Personnel

1962		1963		1964
Registrar	1	1	Dean of Admis. & Records	1
Assoc. Registrar	1	2	Assoc. Dean of Admis.	2
Assistant Registrar	1	1	Asst. Dean of Admis.	1
Principal Clerk	1	1	Registrar	1
Senior Clerk-Steno	1	2	Staff Assistant(Recorder)	1
Senior Clerk-Typist	1	1	Principal Clerk	1
Junior Clerk-Steno	3	4	Senior Clerk-Steno	2
Junior Clerk-Typist	4	4	Senior Clerk-Typist	1
			Junior Clerk-Steno	4
			Junior Clerk-Typist	6

3. Organization of Office of Admissions and Records

Dean of Admissions and Records - 1
Associate Dean of Admissions - 2
Assistant Dean of Admissions - 1
Registrar - 1
Staff Assistant (Recorder) - 1
Principal Clerk - 1
Senior Clerk-Steno - 2
Senior Clerk-Typist - 1
Junior Clerk-Steno - 4
Junior Clerk-Typist - 6

4. Students or Clientele Served

See Appendix I, Annual Report of Admissions and Records

5. Faculty Publications

Starkweather, William. An Admissions Data Processing System. Office of Institutional Studies, Information Series No. 10. University of Massachusetts. 1963

6. Major Accomplishments

Applications for admission to the freshmen class numbered approximately 14,000. Transfer applicants numbered 1962.

Preselection in college admissions at the University of Massachusetts using methods of data processing and multiple variable prediction enabled a staff of four admissions officers to efficiently process 14,000 freshmen applications and admit a class of 2700 highly qualified applicants.

Total contacts in the admissions office (applications, College Board scores, and interviews) numbered 35,000.

7. Special Projects

During the fall of 1963, the University Committee on Financial Aid and Scholarship established certain basic critera for awarding freshman scholarships for the class of 1968. The intent of the program was to attract to the University of Massachusetts those youngsters with outstanding college potential in the Commonwealth and meet their financial need. Nominations for these scholarship awards were made by the Admissions Office and were approved by the Sub-Committee on Entering Freshmen of the University Committee on Financial Aid and Scholarship. A complete report on the freshman scholarship program was presented to the University Committee on Financial Aid and Scholarship in November, 1964.

In order to assist and cooperate with secondary schools in pre-college counseling, and to acquaint schools with the new Boston area campus, the staff of the Admissions Office visited every public secondary school in the Commonwealth. Visitations were also made to selected private and parochial secondary schools.

8. Future Needs

A. Personnel Needs

1. Staff Assistant (Admissions Counselor) (1) The position is needed in the Admissions Office. During the past three years applications for admission have increased from 7,350 in 1963 to 11,900 in 1964, and to date in 1965 we have approximately 14,000 applications. In order to cope with the increased number of applications and equitably handle all candidates, it is essential that an Admissions Counselor be added to the present staff of four professional Admissions Officers.

The specific duties of the Admissions Counselor would be as follows:

A. Admissions responsibilities, new and transfer undergraduate students.

B. Secondary school and public contacts, including secondary school visitations, participation in panels, college nights, and group discussions.

C. Communications, want requests for application, bulletins and general information on the University, to reply to individual problems and questions regarding communications with applicants of all stages of the application process.

D. Personal contacts -
   1. Interviews
   2. On campus visitors and groups
   3. Telephone

E. Mechanics -
   1. Review and evaluation of applications.
   2. Maintain up-to-date folders and files. Apply IBM programs and statistical data.

F. Selection process -
   1. Research programming utilization of the predicted intercede for selection.
   2. Individual evaluation and selection of candidates.

2. Junior Clerk-Stenographer, (2), Senior Clerk-Stenographer, (1), Senior Clerk, (1) In order to handle the increased number of applications efficiently, it is essential that an orderly expansion of the clerical staff in the Admissions Office be planned for the future. As the size of undergraduate classes increase, the amount of work relating to maintenance of permanent record cards increases. These positions are needed in the Office of Admissions and Records.

UNIVERSITY OF MASSACHUSETTS

Annual Report of Admissions and Records 1964

I A. Membership of The Board of Admissions and Records.

G. A. Cannon	College of Arts and Sciences
C. W. King	College of Arts and Sciences
S. M. Greenfield*	College of Arts and Sciences
F. P. Jeffrey	College of Agriculture
R. W. Lentilhon	School of Business Administration
Miss H. F. O'Leary	School of Education
D. Sabola	School of Engineering
Mrs. S. C. Arnold	School of Home Economics
Miss M. A. Maher	School of Nursing
S. W. Kauffman	School of Physical Education
Miss H. Curtis	Office of Dean of Women
Dr. R. W. Gage	Health Service
R. S. Hopkins	Office of Dean of Men
J. A. Southworth	Counseling and Guidance Office
W. C. Starkweather, Secretary	Office of Admissions and Records
W. D. Tunis, Chairman	Office of Admissions and Records

* Elected member of The Faculty Senate.

B. Admissions and Records Office Professional Staff

W. D. Tunis	Dean of Admissions and Records
R. J. Doolan	Associate Dean of Admissions
E. W. Beals	Associate Dean of Admissions
D. P. Lawrence	Assistant Dean of Admissions
W. C. Starkweather	Registrar
Mrs. Helen M. Perry	Recorder

II Summary of activities of The Board of Admissions and Records.

A. Student Petitions

Petitions	Granted	Denied
Re-admission	38	51
Senior credits in absentia	8	0
Waiver of 45 credit residence rule	2	0
Waiver of a graduation requirement	10	6
Senior year in absentia	1	0
Permission to graduate with cumulative average under cutting point of former class	6	5
Request for an undergraduate degree to be awarded on the basis of completion of work at a professional school	2	1
Waiver of 10 semester rule	1	0
Request for graduation with honors with less than 60 credits in residence	1	0
Waiver of Entrance Requirement	1	1

B. General policies voted by The Board of Admissions and Records

1. Completion of degrees in absentia. Approval of completion in absentia requests, (up to 30 credits, from students with a cumulative average of 2.0 or higher may be granted without Board action upon recommendation and approval of The Student's Department and School or College Dean. Requests, up to 11 credits, from students maintaining the graduation average may be granted on a similar basis.

2. Transfer of advanced placement credits from other schools. The Board voted that students advanced placed at other schools, who subsequently transfer to the University, may be granted credit only if the other school grants such credit for courses "skipped" and shows such credit on the permanent record card. Course waivers for such courses would be applicable.

3. Religious Courses - Some students take certain religion courses at Smith, Mt. Holyoke and Amherst. The previous policy of accepting no course work in a Department of Religion be modified to allow transfer of religious history, literature or survey of philosophy courses. It is specifically not the intent of the Board to give credit for secular dogma.

C. The Faculty Senate voted to refer for study to The Board of Admissions and Records the following:

1. Mid-semester grades and first year cutting points (Report approved by Faculty Senate May 14, 1964).

2. Re-examination of University regulations for adding and dropping courses (Report approved by Faculty Senate December 17, 1964).

3. Incomplete grade regulations (Report approved by Faculty Senate December 17, 1964).

4. Grading system of the University.

III Electronic Data Processing*

Each year The Admissions and Records staff re-appraises and re-examines the systems techniques and makes substantial modifications and revisions in operating procedures. The 1964 year might be characterized as the year whe our electronic data processing system was modified to provide assistance in a rolling admissions process, as opposed to one oriented toward mass processing and end-of-the-year reconciliation.

In preparation for an admissions year where a fifteen to twenty percent increase in document handling was expected, all of the admissions programs were re-written. The front of the application form was changed so that the applicant would pre-code some of the admissions application and as a result considerable time was saved in the keypunching operation in the Admissions Office. In re-writing the programs a new technique was utilized allowing association of documents without assignation of a student number, saving considerable pre-processing time. Editing routines were built into the weekly programs which identified applicants who had been accepted and

from whom no reply had been received after a fifteen day period (so that reminder notifications could be sent to them) as well as applicants who had failed to reply for a thirty day period (who were notified that their applications were being withdrawn). A profile of the applicant population by prediction average and status was programmed, providing a running scatter plan of the admissions picture to supplement the raw-number counts of applicants in various categories. The former financial aid listing for freshmen was expanded to provide more information, including tentative awards which might be offered on the basis of quantifiable scholarship committee operating policies, actual awards offered, accepted, and refused, with totals. Provision was made for the "automatic" mailing of acceptance and rejection letters on the basis of a mark sensed "action card" marked by the admissions officer after completing the review of the application. Mailing labels were automatically produced, with appropriate notations, so that acceptance and rejection form letters, as well as reminder and withdrawal letters mentioned above, could be processed more efficiently.

It is difficult to visualize how one immense admissions process could be handled without the assistance of electronic data processing equipment. However, the methods used have not de-personalized the admissions process. They have simplified the handling of this great volume of material and increased the time. The professional staff could devote more time to the careful and equitable evaluation and review of applications. The time saved in information retrieval and preliminary recording can now be devoted to personal interviews, secondary school visitations, correspondence and the more efficient handling of problem situations. The response of secondary school personnel, applicants, and parents to this unavoidable and beneficial "machining" of the candidate has been extremely good. No admissions officer can match the speed of information processing, accuracy of data association, or memory of a computer which is provided with appropriate "experience" information and proper programming. On the other hand, no computer can react as quickly or as well to the unexpected, or evaluate the unquantifiable, as can an experienced admissions officer. A proper definition of the most suitable roles for each party in this delicate admissions process, has resulted in a highly successful and efficient operation.

* See Office of Institutional Studies information series No. 10 "An Admissions Data Processing System" by William C. Starkweather, Registrar.

IV Freshman Scholarship Program

During the fall of 1963, the University Committee on Financial Aid and Scholarship established certain basic critera for awarding freshman scholarships for the class of 1968. The intent of the program was to attract to the University of Massachusetts those youngsters with outstanding college potential in The Commonwealth and meet their financial need. Nominations for these scholarship awards were made by the Admissions Office and were approved by the Sub-Committee on Entering Freshman of the University Committee on Financial Aid and Scholarship. A complete report on the freshman scholarship program was presented to the University Committee on Financial Aid and Scholarship in November 1964.

V Other Activities

1. During the calender year 1964, the office mailed out a total of 100,475 letters.

2. In order to assist and cooperate with secondary schools in pre-college counseling, the staff of the Admissions Office visited every public secondary school in the Commonwealth. Visitations were also made to selected private and parochial secondary schools.

3. During the year, the Admissions Staff visited each of the Regional Community Colleges at least twice in order to acquaint students and staff with University policies on transfer.

4. Although, interviews are not required as part of the admissions procedure, applicants and their parents come to us in increasing numbers for information about the University and help in regard to personal problems. In order to handle the increasing numbers, the Admissions Office for the first time used group interviews. Based on comments from parents and applicants, the group interview system was well received.

5. Graduation, Honors and Registration lists are prepared. Deficiencies are checked.

6. Withdrawals are processed and refund of student fees authorized.

7. Pre-registrations and registrations are conducted for each semester and the several summer sessions.

8. Grades are received and checked before going to the EDP Office. Grade reports are distributed and class standing reported.

9. More and more the Admissions and Records Office is called upon to furnish detailed statistical information for academic and governmental agencies emphasizing the need for complete and accurate records. This statistical information is the permanent record of the expanding University and constitutes the basis for planning for the future.

1. ADMISSIONS

A. Admissions Data Class 1967 and Trends

1. Total Freshman Completed Applications

		Men	Women	Total
Sept.	1956	2,748	1,264	4,012
Sept.	1957	3,021	1,717	4,738
Sept.	1958	3,547	1,861	5,408
Sept.	1959	3,286	1,876	5,162
Sept.	1960	3,668	2,271	5,939
Sept.	1961	4,029	2,492	6,521
Sept.	1962	4,271	2,659	6,930
Sept.	1963	4,408	3,139	7,547
Sept.	1964	6,681	5,188	11,867

2. Freshman Students Accepted and Enrolled

	Men	Women	Total
Sept. 1956	723	425	1,148
Sept. 1957	730	536	1,266
Sept. 1958	828	538	1,366
Sept. 1959	1,135	703	1,838
Sept. 1960	1,009	716	1,725
Sept. 1961	1,229	689	1,918
Sept. 1962	1,155	767	1,922
Sept. 1963	1,287	999	2,286
Sept. 1964	1,318	1,274	2,592

*Includes transfers and former students assigned to that class.

3. New Freshmen (not including transfer, former students or those demoted).

Class	Selected		Paid		Paid and Withdrawn		Paid less those withdrawn	
	M	W	M	W	M	W	M	W
1962	1272	847	926	660	190	124	736	536
1963	1775	1236	1318	895	263	194	1055	701
1964	1728	1202	1232	895	280	189	952	706
1965	2178	1171	1444	880	298	198	1146	682
1966	2127	1318	1400	1007	304	249	1096	758
1967	2421	1757	1519	1287	318	281	1201	997
1968	2373	2132	1516	1670	395	340	1121	1330

4. Per cent of loss based upon the number selected

Class	Men	Women
1961	40	35
1962	42	37
1963	40.6	43.3
1964	44.9	41.3
1965	47.4	41.8
1966	48.9	42.4
1967	50.4	43.2
1968	52.8	37.7

5. Summary of New Freshmen Applications.

a. Total Completed Applications 11,869

b. Total Selected from Applications 4,505 (37.9 per cent)

c. Total Matriculated of those Selected 2,439 (54.1 per cent)

6. Profile Class of 1968

a. College Board Scholastic Aptitude Test Scores

1. Verbal

	Total		Males		Females	
	N	%	N	%	N	%
700 - up	71	2.8	22	1.8	49	3.6
650 - 699	184	7.2	73	6.0	111	8.2
600 - 649	449	17.5	184	15.0	265	19.7
550 - 599	698	27.1	306	25.0	392	29.1
500 - 549	687	26.7	338	27.6	349	25.9
450 - 499	335	13.0	199	16.2	136	10.1
400 - 449	125	4.9	84	6.9	41	3.0
350 - 399	22	0.9	18	1.5	4	0.3
300 - 349	1	0.03	1	0.08	0	0.0
250 - 299	1	0.03	0	0.0	1	0.07
TOTAL	2573		1225		1348	

2. Numerical

	Total		Males		Females	
	N	%	N	%	N	%
700 - up	157	6.1	105	8.6	52	3.9
650 - 699	321	12.5	203	16.6	118	8.8
600 - 649	580	22.5	307	25.1	273	20.3
550 - 599	640	24.9	305	24.9	335	24.9
500 - 549	586	22.8	226	18.4	360	26.7
450 - 499	213	8.3	61	5.0	152	11.3
400 - 449	69	2.7	17	1.4	52	3.9
350 - 399	7	0.3	1	0.08	6	0.4
300 - 349	0	0.0	0	0.0	0	0.0
250 - 299	0	0.0	0	0.0	0	0.0
TOTAL	2573		1225		1348	

3. Comparison Median Scores Classes of 1966, 1967 and 1968

Verbal			Numerical		
1966	1967	1968	1966	1967	1968
534	542	558	569	571	582

b. High School Rank (Class of 1968)

	Total		Males		Females	
	N	%	N	%	N	%
Top 1 - 5%	488	19.0	143	11.6	345	25.9
6 - 10	471	18.3	156	12.6	315	23.6
11 - 15	386	15.0	176	14.2	210	15.8
16 - 20	333	13.0	161	13.0	172	12.9
21 - 25	289	11.2	157	12.7	132	9.9
26 - 35	323	12.6	219	17.7	104	7.8
36 - 50	171	6.7	128	10.3	43	3.2
51 - 75	82	3.2	73	5.9	9	0.7
76 - 99	28	1.1	25	2.0	3	0.2
TOTAL	2571		1238		1333	

c. Medians - Class of 1968 (Specials)*

	Total	Males	Females
CEEB - Verbal	560	560	560
CEEB - Mathematics	564	576	551
High School Rank	77%	72%	80%

* Students admitted to the Summer January Program.

B. Admissions Data Transfers September 1964 and Trends

1. Completed Applications and Trends

	Completed Applications		Accepted and Enrolled	
	Men	Women	Men	Women
Sept. 1959	518	152	99	17
Sept. 1960	499	144	77	22
Sept. 1961	677	201	172	23
Sept. 1962	784	270	173	33
Sept. 1963	854	668	195	79
Sept. 1964	1006	452	233	114

2. Transfers Accepted

	1965	1966	1967	1968	Total
Men	1	85	101	46	233
Women	3	56	49	6	114
Total	4	141	150	52	347

C. Admissions Data Former Students September 1964 and Trends

	Men	Women
Former students who re-entered September 1958	78	8
Former students who re-entered September 1959	68	16
Former students who re-entered September 1960	83	14
Former students who re-entered September 1961	68	25
Former students who re-entered September 1962	106	32
Former students who re-entered September 1963	127	21
Former students who re-entered September 1964	205	45

1. Admissions Data Spring Semester 1963-1964

	1964	1965	1966	1967	1968	Total
Men	7	24	81	87	19	218
Women	5	7	12	20	2	46
Total	12	31	93	107	21	264

D. Admissions Data Spring Semester 1963-64

New Freshman	44	
Transfers		
Class '65	3	
Class '66	30	
Class '67	51	
Class '68	14	
Former Students Returning		
Class '64	12	
Class '65	31	
Class '66	93	
Class '67	107	
Class '68	21	
Total New Students Spring Semester		406

B. UNDERGRADUATE REGISTRATION AND TRENDS

1. Undergraduate Registration September 1964

	1965		1966		1967		1968		Total		
Class	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Total
A & S	479	328	593	374	667	550	768	888	2507	2140	4647
Agric	80	1	101	6	113	8	75	11	369	26	395
Bus Adm	115	8	190	10	202	21	126	6	633	45	678
Engin	165	2	211	1	215	1	300	3	891	7	898
Home Ec	-	31	-	37	-	54	-	72	-	194	194
Nursing	-	27	-	34	-	46	-	69	-	176	176
Phys Ed	49	24	46	24	35	25	45	30	175	103	278
Educ	3	130	7	125	8	167	2	165	20	587	607
Pub Health	11	16	8	14	1	22	2	30	22	82	104
	902	567	1156	625	1241	894	1318	1274	4617	3360	7977
Total by Classes	1469		1781		2135		2592		7977		
							Specials		64	126	190
								TOTAL			8167

2. Undergraduate Residence September 1964

Massachusetts	7521
Other States	445
Foreign	11
Total	7977

3. Enrollment Trends - Total Undergraduates

Year	Men	Women	Total
1951	1934	1021	2955
1952	2032	1164	3196
1953	2267	1220	3487
1954	2479	1224	3703
1955	2459	1169	3628
1956	2581	1212	3793
1957	2650	1341	3991
1958	2772	1495	4267
1959	3090	1765	4855
1960	3257	2000	5257
1961	3549	2135	5684
1962	3759	2381	6140
1963	4125	2757	6882
1964	4617	3360	7977

4. Enrollment Trends - Freshman Men and Women

Class	Men	Women	Total
1955	639	406	1045
1956	669	407	1076
1957	754	416	1170
1958	810	372	1182
1959	698	390	1088
1960	723	425	1148
1961	730	536	1266
1962	828	538	1366
1963	1135	703	1838
1964	1009	716	1725
1965	1229	689	1918
1966	1155	767	1922
1967	1287	999	2286
1968	1318	1274	2592

5. Enrollment Trends - Freshman Enrollment by Schools

Class	Arts & Science	Engin.	Ed.	Bus. Adm.	Agric.	Home Econ.	Phys. Ed.	Nursing	Public Health
1956	522	213		115	99	102	25		
1957	577	277		146	83	64	23		
1958	543	314		148	98	55	24		
1959	519	295		93	86	52	20	23	
1960	588	309		107	61	40	18	25	
1961	607	309	90	116	55	45	23	21	
1962	694	300	80	125	69	35	38	25	
1963	987	321	127	173	92	37	63	39	
1964	972	317	117	115	80	25	62	37	
1965	1164	298	102	135	86	26	71	36	
1966	1168	268	116	133	93	37	65	42	
1967	1468	277	127	140	92	65	51	51	
1968	1656	303	167	132	86	72	75	69	32

6. Undergraduate Registration - Spring Semester 1963-64

Class	Men	Women	Total
1964	626	468	1094
1965	984	579	1563
1966	1025	651	1676
1967	1286	978	2264
1968	69	9	78
Total	3990	2685	6675
Specials	67	123	190

7. Summer School Undergraduate Registration 1964

Session Number	Individual Students
1	82
2	567
3	10
4	7
5	4
6	958
7	40
	1668

8. Distribution of Undergraduate Enrollment by Majors - September 1964

College of Arts & Sciences

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
Astronomy	1		4	1	4		3		12	1	13
Microbiology	3	7	2	3	4	6	2	7	11	23	34
Botany	3	4	2	3	5	3	4	4	14	14	28
Chemistry	20	5	31	3	30	6	64	21	145	35	180
Economics	35	4	32	2	24	3	17	2	108	11	119
English	55	96	76	105	65	134	67	154	263	489	752
Journalism	4	4	2	5	11	12	19	24	36	45	81
Geology	9	4	10		5		7	1	31	5	36
Art	9	13	6	21	4	14	2	25	21	73	94
German	2	5	4	6	8	10	4	9	18	30	48
History	54	25	87	43	109	53	84	64	334	185	519
Government	109	30	108	24	89	27	72	36	378	117	495
Math	48	30	44	34	75	62	122	142	289	268	557
Music		1	4		4	3	1	5	9	9	18
Philosophy	1		6	2	9	2	8		24	4	28
Physics	8	2	16		12	3	25	4	61	9	70
Psychology	38	24	36	25	40	52	39	100	153	201	354
Romance Lang				1		2		1		4	4
French	5	9	6	12	5	44	6	81	22	146	168
Spanish	1	8	2	13	8	13	2	27	13	61	74
Italian								1		1	1
Russian	3	1	3	1	8	6	1	10	15	18	33
Latin						1				1	1
Sociology	9	28	18	28	11	37	6	53	44	146	190
Anthropology	2			1	1	2			3	3	6
Speech	6	10	7	17	6	17	3	17	22	61	83
Zoology	20	16	32	17	32	22	46	47	130	102	232
Premed	21	2	34	7	60	14	98	37	213	60	273
Predent	11		16		33		50	1	110	1	111
Prevet	1		4		4	2	11	9	20	11	31
No major	1		1		1		5	6	8	6	14
TOTAL	479	328	593	374	667	550	768	888	2507	2140	4647

College of Agriculture

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
Agric Econ	5		1		5				11		11
A F Econ	1								1		1
Agric Engin					1		1		2		2
Plant Soil	7		6	1	9	2	3	1	25	4	29
Dairy	1								1		1
Animal Sci	6	1	11	3	8	2	7	1	32	7	39
Entomology	7		5		2		1		15		15
Food Science	7		10	1	6	2	5	4	28	7	35
Hotel Mgt	5		11		13		5	1	34	1	35
Forestry	17		13		17	1	23	2	70	3	73
Wildlife	12		23		23		18	1	76	1	77
Land Archi	12		20	1	24	1	6		62	2	64
Prevet			1		4		5	1	10	1	11
TOTAL	80	1	101	6	112	8	74	11	367	26	393

School of Business Administration

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
S BA	1		25		183	18	122	6	331	24	355
General Bus	3		5						8		8
Accounting	39	3	65	3	10	1	3		117	7	124
G B Finance	23		24	1	1				48	1	49
Management	24	2	51	4	4		1		80	6	86
Marketing	25	3	20	2	4	2			49	7	56
TOTAL	115	8	190	10	202	21	126	6	633	45	678

School of Education

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
Education	3	130	7	125	8	167	2	165	20	587	607

School of Engineering

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
Engineering			1		10		278	3	289	3	292
Chem Engin	20		17	1	25		7		69	1	70
Civil Engin	38	1	59		43		5		145	1	146
Elec Engin	53		67		67	1	5		192	1	193
Indust Engin	17		20		15				52		52
Mech Engin	37	1	47		55		5		144	1	145
TOTAL	165	2	211	1	215	1	300	3	891	7	898

SCHOOL OF HOME ECONOMICS

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
Home Ec		31		37		54		72		194	194

SCHOOL OF NURSING

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
Nursing		27		34		46		69		176	176

SCHOOL OF PHYSICAL EDUCATION

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
Phys Educ					1		5	3	6	3	9
Men P E	45		43		33		39		160		160
Women P E		19		17		22		25		83	83
Recreation	4	5	3	6	1	2	1	2	9	15	24
Rec Leader				1		1				2	2
TOTAL	49	24	46	24	35	25	45	30	175	103	278

DEPARTMENT OF PUBLIC HEALTH

Curriculum	1965		1966		1967		1968		Total		Grand Total
	M	W	M	W	M	W	M	W	M	W	
Public Health	11	3	7	2				1	18	6	24
Med Tech		13	1	12	1	22	2	29	4	76	80
TOTAL	11	16	8	14	1	22	2	30	22	82	104

9. Registration on Interchange of Students Programs, Amherst, Mount Holyoke, Smith, and University of Massachusetts cooperating.

a. Spring Semester 1963-64

From	Course	Number of Students
Amherst to University	Art 31	1
	Art 57	1
	Art 65	1
	Botany 1	1
	Chinese 11	1
	Civil Engineering 53	1
	Computer Science 21	2
	Education 66	1
	General Business 71	1
	Geology 1	1
	Mechanical Engineering 2	1
	" " 46	1
	Music 14	1
	Zoology 1	1
	" 80	1
Mt. Holyoke to University	Ag Economics 98	1
	Chinese 2	2
	Computer Science 21	1
	Geology 33	1
	Government 296	1
	Philosophy 68	2
	Psychology 92	3
	Statistics 51	1
Smith to University	Art 33	1
	Chinese 11	3
	English 51	1
	" 56	1
	Entomology 56	1
	Geology 227	1
	German 236	1
	Government 93	2
	History 54	1
	Landscape Architecture 78	1
	Mathematics 69	1
	Philosophy 68	1
	" 72	1
	Physics 98	1
	Speech 62	1
	Speech 64	3
	Statistics 51	2

From	Course	Number of Students
University to Amherst	Greek 15	1
	Greek 6	1
	History 40	1
	Religion 24	1
	Religion 26	2
University to Mt. Holyoke	Classics 2445	1
University to Smith	English 323B	1
	English 412B	2
	French 54B	1
	History 44B	1
	Latin 14B	1
	" 36B	1
	Mathematics 43	1
	Modern Chinese 12	1
	Religion 28B	1
	Religion 34B	1

b. Fall Semester 1964-5

Amherst to University	Accounting 25	1
	Anthropology 73	1
	Art 31	1
	Art 57	1
	Chinese 2	1
	Computer Science 51	2
	German 51	1
	History 262	1
	Management 81	1
	Mathematics 93	2
	Mechanical Engineering 35	1
	Portuguese 1	1
	Sociology 69	1
Mt. Holyoke to University	Anthropology 73	2
	Art 53	1
	Chinese 7	1
	Computer Science 51	2
	Government 95	1
	Government 96	1
	Government 296	1
	History 57	3
	Sociology 69	1
	Speech 63	1

From	Course	Number of Students
Smith to University	Chinese 7	1
	Chinese 12	1
	Entomology 26	1
	Government 296	1
	Mathematics 92	1
University to Amherst	Art 57	1
	Greek 41	1
	Latin 5	2
	Latin 41	1
	Religion 21	2
	Religion 23	1
	Religion 49	1
University to Smith	Art 316a	1
	Chinese 32a	1
	Latin 14a	2
	Psychology 30a	1
	Sociology 314a	1

C. RECORDS

1. Withdrawals

a. Academic Dismissals - college year 1963-4
Scholastic Dismissals January 1964. Includes those dismissed but reinstated.

Class	Men	Women	Total
1964	8	4	12
1965	40	8	48
1966*	80	20	100
1967	61	18	79
	189	50	239

*Of these there are 1 man and 5 women in the class of 1966 who were charged with an academic dismissal but were allowed to return on a probationary basis.

Scholastic Dismissals June 1964. Includes those dismissed but reinstated.

Class	Men	Women	Total
1964	3	2	5
1965	18	9	27
1966	61	12	73
1967	154	64	218
1968	7	2	9
	243	89	332

b. Trend in academic dismissals for freshman year.

Class	Number of dismissals in freshman year	Total enrollment Sept. of freshman year	Rate of dismissals in per cent
1957	103	1170	8.8
1958	172	1182	14.5
1959	129	1088	11.8
1960	144	1148	12.5
1961	167	1266	13.2
1962	166	1366	12.15
1963	270	1838	14.7
1964	315	1725	18.3
1965	406	1918	21.1
1966	312	1922	16.2
1967	297	2286	12.9

c. Scholastic Probation 1963-64

Class	Male	Female	Total
1964	9	3	12
1965	28	5	33
1966	43	15	58
1967	52	29	81
Total	132	52	184

In some cases other failures were reinstated without probation by the Board of Admissions and Records.

d. Summary of Withdrawals - College year 1963-64
1. Withdrawals during Fall semester.

Reasons	1964		1965		1966		1967		Spec.		Total
	M	W	M	W	M	W	M	W	M	W	
Difficulty with studies	-	-	3	-	7	1	10	2	-	-	23
Financial	1	-	2	-	2	-	1	-	-	-	6
Transfer	-	-	2	-	1	3	4	6	-	-	16
Discipline	-	-	-	-	-	1	-	-	-	-	1
Personal	7	2	26	3	33	5	25	8	2	5	116
Military Enlistment	-	-	1	-	-	-	2	-	-	-	3
Health	1	3	4	4	7	7	6	10	-	1	43
Marriage	-	-	-	5	-	2	-	1	-	-	8
Reasons Unknown	-	1	-	-	1	-	1	-	1	-	4
Totals	9	6	38	12	51	19	49	27	3	6	220

2. Withdrawals between the fall and spring semesters

Reasons	1964		1965		1966		1967		Specials		Total
	M	W	M	W	M	W	M	W	M	W	
Scholastic dismissal	8	4	40	8	80	20	61	18	0	0	239
Difficulty with studies	0	0	0	0	0	0	0	0	0	0	0
Financial	0	0	1	0	3	0	1	0	0	0	5
Transfer	0	3	0	2	2	4	4	4	0	0	19
Discipline	0	0	0	0	0	0	0	0	0	0	0
Personal	2	0	5	1	6	2	0	5	1	1	23
Military	1	0	0	0	1	0	0	0	0	0	2
Health	0	1	2	2	0	1	0	2	0	0	8
Reason unknown	9	5	14	5	12	5	15	7	11	35	118
Marriage	0	1	0	2	0	1	0	0	0	0	4
Totals	20	14	62	20	104	33	81	36	12	36	418

3. Withdrawals during spring semester

Reasons	1964		1965		1966		1967		1968		Specials		Total
	M	W	M	W	M	W	M	W	M	W	M	W	
Difficulty with studies	0	0	1	0	3	0	3	1	0	0	0	0	8
Financial	1	0	3	0	0	0	0	0	0	0	0	0	4
Transfer	0	0	0	0	1	0	1	1	0	0	0	0	3
Discipline	0	0	3	1	2	0	3	1	1	0	1	0	12
Personal	3	2	13	2	11	2	28	6	0	0	2	3	72
Military Enlistment	0	0	0	0	1	0	0	0	0	0	0	0	1
Health	0	0	2	2	6	2	4	11	0	0	1	0	28
Marriage	0	0	0	2	0	1	0	0	0	0	0	0	3
Totals	4	2	22	7	24	5	39	20	1	0	4	3	131

4. Withdrawals between end of spring semester and September 1964

Reasons	1964		1965		1966		1967		1968		Total
	M	W	M	W	M	W	M	W	M	W	
Scholastic deficiency	3	3	20	11	65	14	160	64	11	3	354
Difficulty with studies	0	0	0	0	0	1	0	0	0	0	1
Financial	0	0	1	0	4	6	1	3	3	0	18
Discipline	0	0	1	0	1	1	0	1	0	0	4
Transfer	1	1	2	3	3	6	4	11	1	0	32
Personal	0	0	3	5	3	10	8	6	0	0	35
Military Enlistment	0	0	0	0	0	0	0	0	0	0	0
Health	0	0	1	0	0	0	1	0	0	0	2
Reason unknown	18	7	9	8	12	16	15	24	1	1	111
Marriage	0	1	0	1	0	4	0	1	0	0	7
Totals	22	12	37	28	88	58	189	110	16	4	564

2. Class and University yearly grade point averages 1963-64

Class of 1964	Number of Students	Average of Average
Men	1339	2.572
Women	963	2.792
Class	2302	2.664
Class of 1965		
Men	1964	2.303
Women	1167	2.444
Class	3131	2.355
Class of 1966		
Men	2148	2.104
Women	1326	2.358
Class	3473	2.201
Class of 1967		
Men	2567	1.911
Women q	1957	2.143
Class	4524	2.012
Class of 1968		
Men	74	1.648
Women	10	1.410
Class	84	1.620
Total		
Men	8092	2.164
Women	5423	2.374
University	13515	2.248

3. Bachelors Degrees awarded 1964. Students who received degrees in calendar year 1964 graduated as of the Class of 1964.

School	February	June	September	Total
Arts and Science				
B.A.	26	413	53	492
B.S.	12	106	10	128
Agriculture				
B.S.	6	66	2	74
B.V.A.		2		2

School	February	June	September	Total
Business Administration				
B.B.A.	18	85	16	119
Engineering				
B.S. Ch.E.	4	20	1	25
B.S. C.E.	3	18	1	22
B.S. E.E.	5	23	4	32
B.S. M.E.	4	34	5	43
B.S. Ind.		6	1	7
Education				
B.A.	1	95	4	100
Home Economics				
B.A.	2	28	4	34
Nursing				
B.S.	1	20		21
Physical Education				
B.S.	12	36		48
Dept. Public Health		6	3	9
Grand Total	94	958	104	1156

4. Transcripts of Records Issued July 1, 1963 to June 30, 1964

a. Undergraduates

Free Transcripts	5267
Paid Transcripts	8198
Defective matrix	175
Defective copy	195
Transcripts for other offices	818
Total	14653

b. Graduate School

Free Transcripts	1028
Paid Transcripts	1188
Defective matrix	69
Defective copy	74
Transcripts for other offices	934
Total	3293

c. Total transcripts done by Registrar's Office 17,946

UNIVERSITY OF MASSACHUSETTS

OFFICE OF THE DEAN OF STUDENTS

ANNUAL REPORT

July 1, 1964 to June 30, 1965

The reports from the several Student Personnel divisions are forwarded herewith and represent a summary of activities for the past year, together with those proposals that have implications for the future growth of Student Personnel Services at the University. A cursory analysis of these documents will indicate that the work load indications by even the simplest of criteria have exceeded the expectations based on a simple arithmetical projection of enrollment expansion. The diversity of programs, activities, and undertakings which characterize the University are at the root of the particular sub-unit reports contained from Student Personnel.

While the residential college experiment initiated in the past year represents the most dramatic single effort on the part of the University to diversify programs, it, of itself, is only one expression of the underlying desire to increase flexibility in terms of the response to individual student and program needs within the University growing ever larger in total structure. Whether the programs have developed from off-campus stimulus, as is the case with the Economic Opportunity Act, or whether the programs have been internal, as is the case with the expansion of work-study opportunities, the fact is clear that in the years immediately ahead we can anticipate pressures toward an ever increasing diversification of our response to students and their educational experience. While it is important that the University respond to these pressures with a maximum of administrative desire for educational diversification, it must be remembered that the simple administrative structure which might appear attractive in a monolithic institution is incompatible with these pressures. The various Student Personnel Services have, within the past year, attempted to say "yes" to all requests for specialized programs which might conceivably produce positive student benefits. I think it is important that we maintain this philosophy and, at the same time, accept the fact that administratively the costs are higher in any such approach.

It is my sincere hope that we will move ahead to a southwestern complex residential organization which is different from Orchard Hill, but which will permit the exploration of different educational procedures and involve faculty whose particular desires are unique to this area. At the same time, it is my hope that we will be able to profit by our first year experience in the Orchard Hill and to move toward simplification of administrative processes and a maximizing of the educational flexibility of the faculty within this area. At the same time, one would hope that the so-called traditional dormitories will, in their own ways, be able to benefit from a residential enrichment program which will endeavor, within a different administrative context, to provide these students with a broadened experience in the campus community.

In some ways it is comforting to realize that we were able, in a fashion, to absorb the expansion pressures of the past year, and at the same time make some plans for the expansion to come in 1965-66. In yet another sense it is true that the pressures of day-to-day activities have inhibited the freedom of responsible department heads to debate with one another and with members of the faculty the more fundamental goals which must be defined if we are to move logically toward some reasonable accomplishment level in the future. Somewhere within the expansion pressures which face us, time must be developed to permit the thought and discussion and planning for the future which will enable us to move with direction, rather than in response to immediate crises. A period of expansion provides a rare opportunity to move toward the new and more effective, but at the same time presents the hazard of immediate response and short term solution as the easier out. If there is any single task which faces Student Personnel as a unit within the upcoming year, it is to achieve a balance and a future goal based on thought and plans derived from conversations within the broad campus community. It is my hope that we will be able to move toward that goal in the next year.

William F. Field

William F. Field
Dean of Students

1. APPROPRIATION

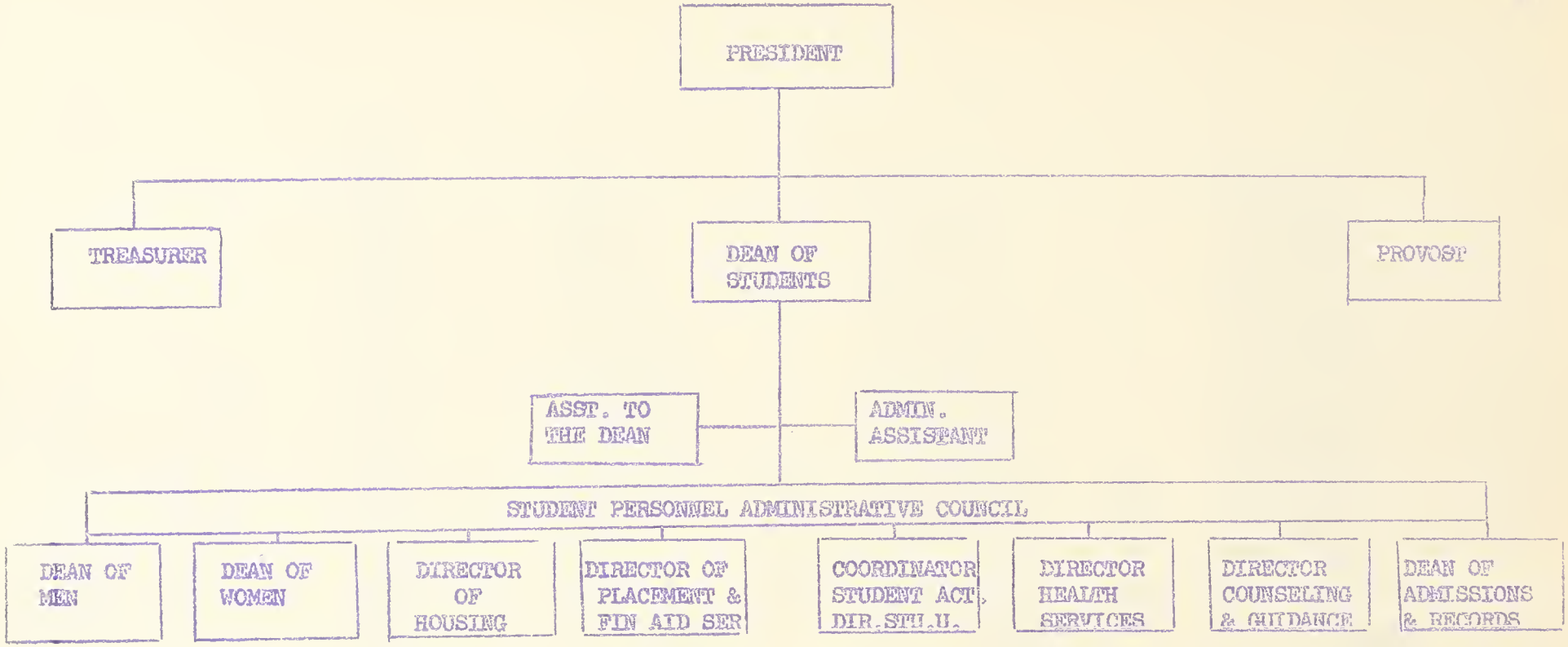
Account	Fiscal Year 1962-63	Fiscal Year 1963-64	Fiscal Year 1964-65
03 Services Non-employees	$ 709.00	$11,128.00	$10,871.75
06 Housekeeping Supplies	-	-	5,000.00
10 Travel	800.00	550.00	400.00
11 Printing	75.00	250.00	115.00
12 Repairs, Alterations, etc.	183.00	65.00	290.00
13 Special Supplies	600.00	3,084.00	4,675.00
14 Office and Administrative Expense	1,450.00	6,700.00	3,445.00
15 Equipment	2,000.00	799.20	1,905.00

2. PERSONNEL

Position	Sept., 1962	Sept., 1963	Sept., 1964
Dean of Students	1	1	1
Head Clerk	1	1	1
Senior Clerk-Stenographer	1	1	1
Staff Assistant	-	-	1

3. ORGANIZATION

See chart, page 4



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UNIVERSITY OF MASSACHUSETTS
Amherst, Massachusetts

OFFICE OF THE DEAN OF MEN

ANNUAL REPORT

July 1, 1964 - June 30, 1965

1. Appropriations

As the Dean of Men's Office functions under an allotment made from the appropriations to Student Personnel, only such allotments pertaining to the Dean of Men's Office are listed as follows:

1962 - 1963

03 Account

$24,684.00	$22,609.00	(Residence hall counselors and faculty residents plus counselors for the summer school period)
	1,650.00	(Head counselors' meals)
	425.00	(Dean of Men's Office)
	$24,684.00	

1963 - 1964

03 Account

$27,516.00	$23,291.00	(Residence hall counselors and faculty residents plus counselors for the summer school period)
	2,600.00	(Residence hall office duty)
	1,200.00	(Assistant Dean of Men's Office)
	425.00	(Dean of Men's Office)
	$27,516.00	

1964 - 1965

03 Account

$41,335.00	$32,670.00	(Residence hall counselors and faculty residents plus counselors for the summer school period)
	6,040.00	(Residence hall office duty)
	2,200.00	(Assistant Dean of Men's Office)
	425.00	(Dean of Men's Office)
	$41,335.00	

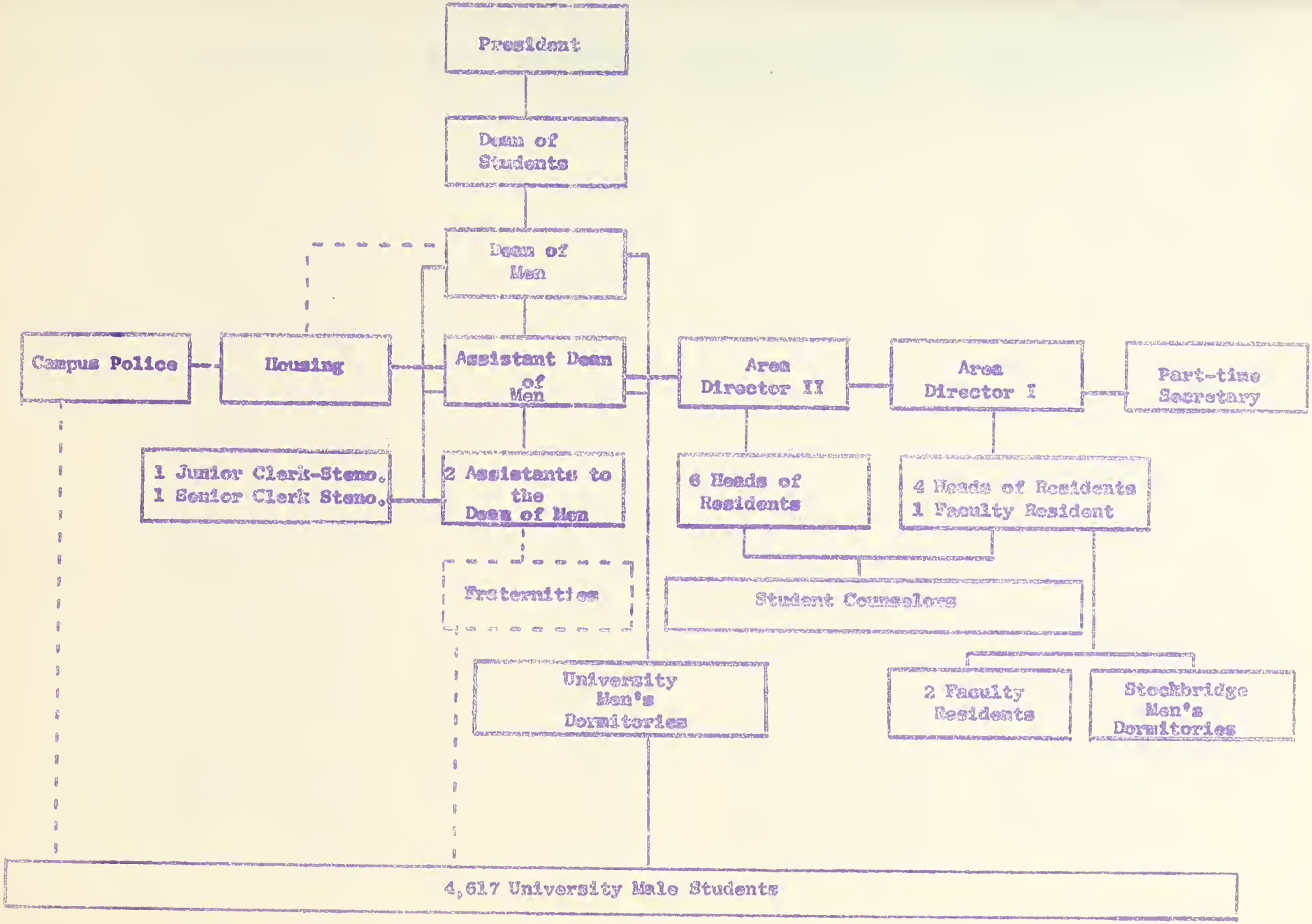
Accounts	1962-1963	1963-1964	1964-1965
10	$ 250.00	$ 300.00	$ 300.00
11	$ 150.00	$ 100.00	$ 150.00
12	$ 81.00	$ 85.00	$ 190.00
13	$ 100.00	$ 175.00	$ 150.00
14	$ 800.00	$ 850.00	$ 500.00
15	nothing	to be assigned	$ 600.00

2. Personnel - Number in Each Rank

September, 1962	September, 1963	September, 1964
1 Dean of Men	1 Dean of Men	1 Dean of Men
1 Staff Assistant	1 Assistant Dean of Men	1 Assistant Dean of Men
13 Heads of Residence	1 Staff Assistant	2 Staff Assistants
1 Junior Clerk and Stenographer	12 Heads of Residence	15 Heads of Residence
1 Junior Clerk	2 Junior Clerks and Stenographers	1 Senior Clerk and Stenographer
		1 Junior Clerk and Stenographer

3. Organizational Chart

SEE NEXT PAGE.


President
Dean of Students
Dean of Men
Campus Police
Housing
Assistant Dean of Men
Area Director II
Area Director I
Part-time Secretary
1 Junior Clerk-Steno.
1 Senior Clerk Steno.
2 Assistants to the Dean of Men
6 Heads of Residents
4 Heads of Residents
1 Faculty Resident
Fraternities
Student Counselors
University Men's Dormitories
2 Faculty Residents
Stockbridge Men's Dormitories
4,617 University Male Students

4. Students or Clientele Served

a. On a regularly scheduled basis, the Dean of Men sees on the average of ten or a dozen students a day. There are many individuals who drop in for a brief visit, and it is estimated that this would put the average possibly as high as twenty to twenty-five contacts on an average day with members of the student body. The discussions which are held with students range all the way from serious and very private personal problems which they wish to air with the Dean to a simple matter of going over one's budget in preparation for authorizing a small loan or short-term credit at the University Store. Seldom are conferences held without several interruptions from the telephone; although on the more serious and extensive conferences, it has been the practice that all but emergency calls be held so as not to interfere with the rapport which has been established between the client and the Dean.

In addition, the Dean visits living groups with some regularity and talks with individual students in their rooms or as an invited guest at parties, banquets, and dances. In this capacity, he serves as one who enjoys tremendously being with students in a social situation. Both the Dean and Mrs. Hopkins feel that one of their obligations is to attend as many student functions as possible. There is a limit to their endurance, however; and occasionally, they have to decline on the basis of prior commitments or even have to set aside a couple of days when they will not accept invitations. These are few and far between, and they most completely enjoy the cordiality of their relationship with students in this matter.

b. The Assistant Dean of Men's Office is directly responsible for the supervision of the sixteen men's residence halls which house 3,342 men (including Stockbridge) on this campus. His staff consists of two Area Directors, thirteen Heads of Residence, and three Faculty Residents. The Heads of Residence and Faculty Residents are supported by 128 counselors who are considered to be students on work scholarships.

The major intent is to maintain residence halls which are comfortable, have a pleasant atmosphere, and are quiet and conducive to study and sleep.

c. The Assistant to the Dean of Men assists at the Dean of Men's Office with its host of routine and emergency matters; he is also responsible for relations with fraternities which house approximately five hundred men within the chapter houses and have a membership of over one thousand. He meets daily with from four to five to as many as twenty or twenty-five students on an individual and small group basis. Regular meetings are held with the following: student leaders, judiciary personnel, fraternity leaders (I.F.C. and individual chapter officers), fraternities at chapter houses, officials from national fraternity organizations, fraternity housemothers and advisers.

d. In October, 1964, an additional position of Staff Assistant was created. There was no lack of immediate work load for between October, 1964, and May, 1965, Mr. Ogden, who was appointed to the position, interviewed 569 students. As to reasons for the interviews, 220 were requests for special academic scheduling, 95 were requests for emergency loans, 71 wished to withdraw from the University, 47 wished to drop courses or arrange for incompletes, 28 were having trouble with studies and/or choice of major, 24 were for disciplinary action, and 84 were for miscellaneous reasons.

e. The function of the Area Director is to insure the smooth and efficient operation of the residence halls within a certain geographical location. Each Area Director serves approximately 1,800 male undergraduate students. Direct contact with the students is made by referral from the house counselors and the heads of residence. The Area Director is concerned with the social, academic, and disciplinary problems of the students who live within the Area Director's respective geographical location. In the course of the year, the Area Directors worked with about 15 per cent of the students in their areas. More important, the Area Directors, in conjunction with the heads of residence and the counselors, strived to create conditions within the residence halls which would advance the social and educational goals of the students.

5. Faculty publications, research grants, research projects, and other professional activities.

a. While the results of a major research program have not been distributed beyond a very restricted area, considerable data have been gathered concerning students who have been dismissed from the University for disciplinary reasons over the past fifteen years; the Dean is still working with these data in the hopes of presenting either for a less limited distribution or even for publication of some of his findings.

b. The Assistant Dean of Men has taught two graduate courses in the School of Education during the past academic year. One course was entitled "Administration of Adult Education," and the second course was entitled "Student Personnel Services in Higher Education." Both had more than thirty students.

The Assistant Dean of Men received his second masters degree, a M.Ed. in Counseling and Guidance, from the University of Massachusetts in June, 1964. The course work for his Ph.D. in Adult Education is completed and his dissertation underway.

He attended the NASPA Conference in Washington, D.C., and has contributed four times to the column, "Spotlight on Innovation" in the NASPA JOURNAL. He became an Institutional Delegate to NASPA on April 30, 1965, and was reappointed to assist Fred W. Smith, Assistant Dean of Student Affairs, Alma College, Alma, Michigan, in the writing of "Spotlight" for the NASPA JOURNAL.

The Assistant Dean of Men attended the Adult Education Association Conference in Milwaukee, Wisconsin, during November, 1964, and was appointed to the Willis Commission Committee of the Massachusetts Chapter of A.E.A. He is also the recipient of a scholarship to attend the National Education Association National Training Laboratories at Bethel, Maine, in June of 1965. The laboratory that he received the scholarship for is designed to enhance personal and administrative growth in order to increase one's ability to work effectively in group and educational organizations.

He is a member of Phi Delta Kappa, a professional fraternity for educators, and in January, 1965, was appointed to a trustee committee at his alma mater, Emerson College, Boston. This committee will concern itself with long-range planning.

c. Mr. Barnard attended a seminar on narcotics sponsored by the Boston Police Department, a guidance conference at the University of Massachusetts, a meeting of the Deans of New England State Universities at the University of New Hampshire. He completed his course work for an M.Ed. in Counseling and Guidance and began work on his Ph.D. in Counseling Psychology. He serves as faculty adviser to the INDEX and as faculty adviser to the 1965 S.W.A.P. Conference.

d. With the completion of thesis work in the summer of 1965, Mr. Ogden will receive the Master of Education degree. Also during the summer sessions, he will begin work on the statistical language requirement in preparation for the Doctor of Education degree.

On March 16, 1965, Mr. Ogden attended in Boston a day-long seminar on narcotics sponsored by the Boston Police Department. He also attended a guidance conference held here at the University of Massachusetts School of Education. He was an affiliate delegate to the NASPA Convention held in Washington, D.C., from April 4-7, 1965. On campus, he audited a course in Student Personnel Services and attended several seminars on related topics sponsored by the Department of Mental Health.

e. The two Area Directors are both continuing their educational programs and also developing their professional competence. Mr. Nowill has received an M.B.A. and is working on a Ph.D. program in economics. He is an active adviser to Alpha Phi Omega, a service fraternity. Mr. Wilson is working for an M.A. in Speech and Hearing Therapy.

Both Area Directors have been taking an active part in encouraging programs that enrich and improve student activities.

6. Major Accomplishments of the Unit

a. The Dean thinks that the major accomplishments of the Office of the Dean of Men is expressed best in one word--"service." "It has always been our dedication to serve the student first--others are in second priority. In rendering such services, it is my feeling that we do everything we possibly can to make the student feel that somebody actually cares about him and his problems. And, if he does not have a problem, we certainly do not create one for him, but we still care for him!"

b. The major accomplishment of the Assistant Dean's unit this year has been the smooth running of a very overcrowded residence hall system in the first semester. In the past when we were not crowded, we were able to smooth interpersonal relations by moving students from an incompatible area to one where they could adapt. Under present conditions, this has been impossible to do; and, therefore, the Heads of Residence and Counselors have spent a great deal of time and effort working with students to help them adjust to unfortunate situations. Tripling is detrimental to the students, as two is company and three is a crowd in a room.

Another major accomplishment has been the marked increase in social programs in the residence halls and increased participation of faculty in informal get-togethers in the houses. This is reflected in the annual reports from each residence hall and in the appendicies which contain examples of the evaluation of the social programs for certain selected months.

c. The Assistant to the Dean of Men provided service to individuals, small groups of student leaders, parents of students, etc., in the following situations primarily--personal counseling and/or guidance, withdrawal interviews, disciplinary interviews (with an emphasis on constructive outcomes), informing students of family deaths or emergencies, discussion sessions at fraternity houses, and in a number of other educational and personal pursuits.

Within the office, methods have been improved for handling the many routine functions of the Office of the Dean of Men in such areas as approving automobile registrations and special scheduling requests and administering the student identification card program.

In the fraternity area, the Interfraternity Council has had published a personal code of standards, instituted its OWN system for inspecting and evaluating the housekeeping of chapter houses, and administered its OWN system for the control of drinking in chapter houses. These programs have been effective to a very large degree. The Assistant to the Dean of Men, Mr. Barnard, has been able to establish good relations with and acceptance by fraternities and has made many acquaintances with its members and leaders. This relationship, it is hoped, will form the basis of still better communications and creative work with fraternities during the coming year.

d. In addition to the duties outlined in 4.d. above, there was further definition of the responsibilities of the additional Staff Assistant. Further activities included working on residence hall renovation, collection of delinquent accounts, hearing car registration requests, and writing personal recommendations.

e. The efficient and effective routine performance of the duties of the position of Area Director is the major accomplishment for the Area Directors this year. It has been their objective to encourage and implement the development of student activities and responsibilities in running the social activities and administration of their respective houses.

7. Special Projects or Programs operated by the unit during the period covered.

a. The reports from the members of the Staff of the Office of the Dean of Men will cover the special projects and programs which were operated throughout the areas in which students live on campus. Fraternities are among those organizations which we consider to be "on campus."

b. The reports of each residence hall show a marked increase of social activities. There has also been a marked increase in the participation of the faculty. It should be pointed out that some residence halls are still mainly fraternity bedrooms; and in these residence halls, there continues to be a limited social program because the social identity of these fraternity men rests with their fraternities. Each one of our residence halls has its own character, and we do not impose a rigid schedule of events and make each residence hall "conform." The programs referred to above are generated by students under the guidance of the Head of Residence and counselors.

8. Future plans and needs.

a. As the institution grows, we are going to have to keep pace. As new programs such as the residential college are conceived and put into operation, we must adjust our thinking to new concepts but always keep in mind the very strong element of personal service to any and all who require it and ask for it. We are especially concerned in the next academic year with the development of the residential college and the challenge which it will present to all of us. The Office of the Dean of Men, as it was created in 1948 on this campus, has always had the philosophy of the following priorities: first, the student's academic program; second, his non-academic but organized program of life; third, his other outside activities--good or bad.

It is our firm and unshakable position that the academic program must take precedence over everything else. The Dean knows as a result of training and sixteen years of experience that if a student is in good health physically and mentally, he is probably able to accomplish the work at hand. If there are distrubances in his personality, no matter how large or insignificant such disturbances may be, he will probably not be able to work as well. Our task is to help students arrive at conclusions that will equip them to do better work.

The time has come now when it is necessary to add to our staff an Associate Dean of Men who will serve as alter ego to the Dean in all respects. This will make it possible for us to promote from within or to seek elsewhere for a person of the proper caliber. It will create another position in the office and make it possible for us to bring into our fold a younger person who is dedicating his future toward the service which we desire to render and give him a chance to not only assist us in our dedicated tasks but also give him valuable experience in student personnel work. Clerical assistance to back up the needs of our staff will have to be provided, and this means the addition of two clerks.

We were engaged in selecting furnishings for the suite of offices which has been assigned to the Dean of Men in the new Administration Building during the year. While the furnishings and trappings are but a part of what we will have, they cause us all to reflect upon the duties which we must perform. The constant reminder of the things which we do helps us to make a continuous assessment of ourselves. To this end, we shall continue with the weekly staff meeting on Monday morning; we schedule no other meetings for that morning so that if we can complete our business in forty-five minutes we can go on to other things or if we become excited about something and discuss it for two hours we still can do so without abdicating our responsibilities to the ones with whom we work.

b. In regard to the Assistant Dean of Men's Office specifically, there is an urgent need for the establishment of a full-time secretarial position. At the present time, the part-time secretary is handling the Assistant Dean of Men's work, the work of the two Area Directors, and also work for the heads of residence. In regard to equipment, there is need for adequate dictating and transcribing equipment as well as a duplicating machine.

Of extreme and urgent importance is a need for financial support for the creating of an adequate social program in the traditional residence halls. This is reflected in the "Residence Hall Faculty Program Pilot Study" which may be found in the appendices. For too long, heads of residence have been supporting social programs, in part, from their own pocketbooks. The Orchard Complex has shown how a social program can grow if supported by adequate funds; and if the Danforth Foundation is willing to spend their money in this behalf, then it is incumbent upon the University to allocate at least an equal amount per capita for the students in the traditional residence halls.

Another major and urgent need for the future is an increase in the amount or remuneration accorded the residence hall counselors. We have repeatedly asked in the budgets for board to be included in the remuneration in addition to the normal free room. Unfortunately, these requests have been consistently turned down. If the counselors take on additional responsibilities and coordinate social and academic programs within the residence halls, it is deemed only equitable that they should receive additional compensation. I think again the Orchard has proved the need for high-quality counselors who are adequately paid for services rendered.

c. Much needed is additional office space as the new Staff Assistant now maintains an office in an area measuring only 7' x 8'. Also, there is no provision for insuring the privacy necessary for confidential interviews.

d. Because of an increase in demand for services and a belief that more should be provided, administrative functions grow at a rate faster than the increase in student population. With the completion of the Orchard Mill Complex, Southwest Complex, and the opening of Thatcher House to men, there is a need for more administrative personnel. We expect an additional 1,140 students living in residence halls by the fall of 1966 over what we had in the fall of 1964. Since at the present each Area Director serves approximately 1,800 students and the position was initially designed to serve 1,200 students in 1963, there is a clearly indicated need for an additional position of Area Director.

Robert S. Hopkins, Jr.
Dean of Men

RSH:emz

A N N U A L R E P O R T

A P P E N D I X I

(SOCIAL EVALUATIONS)

UNIVERSITY OF MASSACHUSETTS

Memorandum

From: W. H. Burkhardt, Jr. Date: May 7, 1965

To: Dean Hopkins Copies to: Men's Residence Hall Staff

Subject: Residence Hall Faculty Program Pilot Study

The following is a proposal for a pilot project to be held in Brett, Mills, and Gorman during the academic year 1965-1966. This program is designed to include faculty members in educational and social activities within these residence halls.

To my mind, one of the most effective parts of the Orchard Hill program is the fact that separate faculty members have been assigned to residence hall sections to act as fellows in those sections. As I understand it, these fellows meet once a week with the members of the section to discuss problems of academic, social, and personal matters with the students. I have talked with a number of students concerning these meetings and they feel that they are very productive because of the continuity with the one faculty member. The students appreciate getting to know a faculty member well. With this in mind, I have the following proposal for a pilot project for the fall of 1965.

1. That a letter be written from this office to all department heads asking for faculty volunteers for this project.

2. That these lists of faculty members be turned over by department heads to this office and a master list of all faculty members volunteering for this program be set up by this office.

3. That students in these residence halls be shown these lists and be given a chance to choose the faculty member that they would like to have assigned to their residence hall section. There are nine sections in Brett House, thirteen sections in Gorman House, and six sections in Mills House. Thus, we need a total of twenty-eight faculty members.

4. The Faculty members would be given the title of House or Section Fellow, and would be asked to have dinner once a week with members of the section and then go back to the residence hall and participate in an hour or two discussion with members of sections.

5. Brett and Gorman are very conducive to a section fellow project because each one has a study lounge in each section. Mills poses somewhat of a problem because of the lack of study lounges on each floor. However, the main study room downstairs might be divided into different sections for conversation on the fellow night. Mills also has a small t.v. room that might be utilized, and a room on the main floor that is being used as a study could be utilized for the meeting that night.

6. Each residence hall might be assigned a head or chief fellow who might work directly with the head of residence in organizing and administrating this program.

7. The fellows, along with student representatives, would organize and carry out activities of a social and academic nature within the hall. This interaction, thus, would be on a continuing basis and not on only a one-shot basis such as our present distinguished visitors program within the residence halls. Under this program larger dinners could be organized fellows and residents could go to plays and lectures and so forth, and perhaps the fellows might invite residents back to their homes periodically for dinner or informal social or academic discussion.

8. I think this program has validity and suggest the inclusion of some method for evaluating it over the next year on the basis of these three residence halls.

Regarding the Head of Residence, continuity is the key factor. She does not have to be trained for her position each year or so as faculty residents and graduate students do. She is now considered a member of the faculty and with the head or chief fellow she could plan the activities for lifting of the general social and academic atmosphere in the residence hall. The faculty would not be living in the hall, and I quite frankly think that is is a good idea to have some separation in living between faculty and students. I feel it is better to get them together for social and academic activities at certain times and also to discuss personal matters rather than having the faculty live in the hall and attempt to administrate it. My feeling is that students do like to be by themselves and with their own peers, and faculty members certainly need a quiet place to study and relax after the strenuous activities of the teaching day.

In regard to Mills, we might evaluate how successful this program is without study halls on each floor. If it proves very difficult to run such a program without study halls as are found in Brett and Gorman, we may then re-design the traditional residence hall including a meeting room or study room on each floor.

In summary, this proposal combines the administrative capability and continuity of the present Heads of Residence and faculty interaction with students. I feel that it is a very health and positive step forward to have so many faculty members who wish to interact with students. I do feel that it is incumbent upon the administration to provide a vehicle for this interaction, and I see no better place than in the residence halls. By allowing the faculty to volunteer, by allowing the students to pick faculty members from this voluntary group, and by setting up the periods for interaction on a regular basis, I think we would be providing an excellent service for both faculty and students and be instrumental in giving this University a more personal atmosphere so as to combat the growing impersonality which is found on every large and rapidly expanding campus.

Residence Hall Faculty Program Pilot Study (con't.)

One other thought is that we could evaluate this program and compare it with the Orchard Hill and the program in the Southwest. I do agree with Dean Field's concept of diversity in residence hall living, and I see no reason why we might not try this project and, if it seems to be successful, continue it within the present residence halls including such modifications that are deemed necessary.

William H. Burkhardt, Jr.
Assistant Dean of Men

UNIVERSITY OF MASSACHUSETTS MEN'S RESIDENCE HALLS
Social Evaluation for October and November 1964 - (Partial Listing)

Baker House

October 10 - Saturday - Mixer with Dickinson

A cooperative effort whereby residents of both dormitories planned the event, decorated Baker's Lounge, and shared the cost of refreshments and the band.

Among the 200 attending were residents of other dormitories especially from other women's residences. However, without these other women, the event would not have been successful, as only a few from Dickinson attended.

Brett House

October 2 - Friday - Mixer with Brooks and Dwight

Nearly 400 people attended this successful affair.

October 14 - Wednesday - Coffee hour with Dean Field

Dean Field entertained questions from the residents who participated fully in the discussion. Throughout the evening, almost every resident took the opportunity to attend at one time or another.

October 19 - Monday - Lecture on first-aid by Dr. McBride

Films were shown by Dr. McBride followed by a brief lecture on general first-aid. Afterward, refreshments were served and he answered residents' questions. About 12 people attended this educational and entertaining affair.

Butterfield House

October 9 - Friday - Mixer with Van Meter

This mixer was attended by 60-70 people and was enjoyed by all. Also, the housemothers of both Van Meter North and South were invited and they attended for a few hours.

October 24 - Saturday - Homecoming Dance

Among the 35 couples at this dance were a few visiting alumni. The event was well organized, and there was a fire in the fireplace which provided a pleasant atmosphere. Also, refreshments were served.

Since the event was very successful, the residents are interested in having open house more often. Full cooperation was received from the residents in regard to the ground rules which included the requirement that rooms be clean.

Chadbourne House

October 2 - Friday - Mixer with Van Meter and the Orchard Dorms

October 16 and 30 - Saturdays - Dances

Both the mixer and the first dance were well attended, but the last dance did not attract as many people. However, all three affairs were considered entertaining due to the efforts of an ambitious social committee.

October 23, 24, and 25 - Open House

Gorman House

September 30 - Wednesday - Discussion on intramural sports with Mr. Gladchuck

This event was successful with almost the entire dorm attending. Gorman's good football team is considered to be due in part to Mr. Gladchuck's ability to instill interest in the residents at this affair.

October - Open House

It was well organized as invitations were sent to all parents. Those parents who did attend were able to meet with the head of residence, counselors, and other residents. Refreshments were served.

October 23 - Friday - Homecoming Float

This project was a first attempt at float building by Gorman residents with great enthusiasm displayed by the builders; the only problem was the inability to rent a truck. However, a solution was found three days before the parade, as a truck from Springfield was hired.

October 28 - Wednesday - Speaker, Dr. Pippert

Early in the evening, Dr. Pippert, an interesting speaker, spoke at a counselors' meeting and at 8:00 p.m. he met with the rest of the residents. The program consisted of a short speech followed by a question-and-answer period.

Grayson House

October 23 - Friday - Semi-formal Dance

This couples' dance was attended by approximately 200 people, and music was provided by a band which is named the "Starfires."

Greenough House

Informal Coffee Hours

October 6 - Tuesday - Dr. Robert Gage

Questions were collected and submitted to Dr. Gage early that day; and in the evening, he held a discussion with 50 residents after he showed a movie on venereal disease.

November 11 - Wednesday - Dr. Cody of the History Department

Although only 12 people attended, a lively discussion was held from 8:00 - 10:40 p.m.

November 20 - Friday - UMass Football, Frank Shields, Frosh Football Coach

About 60 people watched the films of the UMass-Buffalo game and afterward they took part in a discussion with Mr. Shields; this event was registered as a mixed social event and some couples did attend.

Dances: October 24 - Dance held in cafeteria

This couples' dance was successful and music was provided by records. Cider and cake were served.

October 30 - Friday - Halloween Hop in Student Union

This dance was unsuccessful due to a last minute cancellation of the band. The admission charge was to be 50 cents; but without the band, admission was free and a few records were obtained in order to provide music.

November 6 - Friday - Dance in Student Union

In contrast, this dance was well attended, however, even 275 people were not enough as a financial loss was suffered.

October 31 - Saturday - Mixer with Van Meter North at Van Meter

Since the mixer was a cooperative effort, Greenough shared the expenses. However, the mixer was only for the residents of Van Meter and Greenough, but residents from other dorms attended. This intrusion caused some discontent, but on the whole the evening was enjoyable.

Hills House North

October 3 - Saturday - Mixer with Brooks, Leach, Van Meter, and Dickinson

An almost too large crowd attended, but the mixer was successful.

Mills House

October 10 - Saturday - Victory Dance at Student Union

This event was well organized, however, publicity was hurt because the Collegian did not publicize the event and some posters were stolen. Only 100 people attended; therefore, it was a financial fiasco. Total costs were $186 (S.U.Ballroom, $50; Police, $16; Band, $110; Advertising, $10) and ticket sales were $34. Mills feels that it has proven why social activities are not held on long weekends as there is no one to attend them.

Thatcher House

Homecoming Weekend

October 23 - Friday - Float built with help of Mary Lyon

October 23 - Friday - Mixer with 150 attending

October 24 - Saturday - Open House

Many people visited and refreshments were served. In the evening, there was folk singing by some of the residents.

Webster House

October - Halloween Dance

Since this dance was well planned, it was a success with 60-65 couples in attendance. As a novelty, the dance has a beatnik theme.

November 3 - Tuesday - Election

The head of residence and the faculty resident invited the undergraduate residents to watch the election results on their t.v's. Also, there was a t.v. set in the "rec" room and coffee and sandwiches were served to the 300-350 students who were watching t.v. Besides the residents, UMass faculty members Mr. Haven and Mr. Carver attended.

Wheeler House

October 4 - Sunday - Open House

With the purpose of giving parents an opportunity to meet the head of residence and the counselors, invitations by postcard were sent to every resident's family. Also, this event gave new residents an opportunity to establish ties with the head of residence. The Open House was organized by the house council and refreshments were served. On the whole, the afternoon was successful as approximately 200 people visited the dormitory.

October 23 - Friday - Homecoming Float

The efforts of the float committee and other house residents were well rewarded as their float won third place among the floats from men's dormitories. Full cooperation of residents was received in the actual building of the float including the head of residence's. The theme, "B.U. Pin-ups", was selected by the committee from many suggestions submitted to them by dorm residents. The committee advised that lights be included on next year's float.

October 16 - Friday - Mixer with Hamlin and Knowlton

The mixer was held at Hamlin, but there were not a many girls attending as men. The music was provided by borrowed records and record players. Some residents thought that the mixer would have been more successful if a jukebox or band had been used. Also, there was discontentment due to the occasional invasion of men from other dorms and fraternities who would attend just long enough to find a date and they would leave with the girl whom they had met.

Distribution to: Heads of Residence
Dean Field
Dean Hopkins
Dean Curtis
Dr. Hoffsinger

Social Evaluation Brief
For Men's Residence Halls
Month of March, 1965
Compiled by John H. Morton
Undergraduate Assistant for
William H. Burkhardt, Jr.
Assistant Dean of Men

Baker House:

Wednesday, 3 March - An informal discussion on topics of general interest. Guests for the evening included Dr. Ross of the Physics Department and Dr. Sweeney of the English Department. Sixty students were in attendance including ten coeds from Crabtree and Knowlton. Refreshments financed by house funds; considered very successful.

Brett House:

Friday, 19 March - A mixer was held with girls from Brooks and Dickinson invited. The WMUA "Crazy Rythms" show broadcasted from the residence hall. The mixer was open to everyone and about 450 attended. The mixer was considered very successful but the men complained of inadequate space in the house for such events. Special congratulations were extended to Mike Duggan who "kept things going."

Tuesday, 23 March - the men dined at the South Commons and returned to the residence hall for a discussion about narcotics by Dr. Gage. About 50 attended the dinner and about 30 the discussion. The arrangements for the affair were considered excellent but the intradorm communications poor.

Gorman House:

Tuesday, 2 March - Dr. Varley spoke on the Orchard Hill Complex and he answered many questions concerning the future of many of the other residence halls. About 25 students attended. Coffee was served. The event was considered quite successful.

Saturday, 27 March - About 50 students attended a mixer with Johnson House. Few of the Johnson girls attended, however, so the invitation was extended to the girls of Lewis and Hamlin. Although attendance was considered poor, those who came considered the event satisfactory. Tape-recorded music was supplied and expenses were shared by Johnson and Gorman.

Grayson House:

Sunday, 28 March - Sunday afternoon musicale. Records were played. Dedicated to Richard the Lion Hearted. About 20 to 30 people attended; the Program was conducted by Michael Cole.

Wednesday, 24 March - Lecture on Baroque Art by Miss Margaret Darwin (sic), the second in a series on this topic. The lecture was followed by discussion and coffee. Slides were shown to the 35 students in attendance.

Sunday, 14 March - Musicale, 20-30 attending. Michael Cole played a program of classical music.

Saturday, 13 March - I.B.M. Mixer for the entire Orchard Hill Complex. About 200 attended. Excellent organization. Refreshments were served; dancing was also in Webster.

Sunday, 9 March - Dr. Barrom invited the Amherst String Quartet to play at the usual Sunday musicale. About 50 people attended and the concert was very well received.

Greenough House:

Saturday, 13 March - An informal, closed dance. About 22 couples attended. An admission charge of 25 cents per person was collected. The recreation room was appropriately decorated, refreshments were served, and there was a birthday cake for Bill Wilkinson. The affair was rated as excellent.

Thursday, 11 March - Guest, Mr. Pirreau of the French Department, was dined at the "Copper Kettle." Following dinner he showed slides of France and lead an informal discussion in that country. About 15 people attended the "very lively" discussion which they rated as excellent.

Hills North House:

No date given - Dance, featuring a Rock 'n Roll Band. About 150 were in attendance. The affair was considered a success as it was well attended by the ladies. The publicity committee for this event was particularly efficient.

Friday, 12 March - Combined dance with Hills House South. About 300 students attended. All planning and arrangements were taken care of by Hills North. Hills South helped with the clean-up. Socially, the dance was a big success. Financially, however, a moderate loss was incurred.

Mills House:

Wednesday, 10 March - Edward Oretak (sic) '67 was decorated for the Campus Ugly Man Contest. About 12 men helped with suggestions and materials. A good time was had by all.

Tuesday, 16 March - In conjunction with the Counselor's Training Program, Chief Blasko was invited to speak. About eight men were in attendance. Meeting was quite useful to the new counselors. Money for the refreshments was supplied by the Head of Residence.

Thatcher House:

Tuesday, 9 March - Dr. McBride gave a talk on "Sex Education." His talk and film were well received by the thirty students in attendance.

Saturday, 27 March - Mixer with Dwight and Leach. Expenses shared by the three houses. All expenses paid through house funds. Dance included refreshments, band and decorations. About 200 students attended. The affair was considered very successful.

Wheeler House:

Saturday, 27 March - Semi-formal dinner dance at the Lord Jeff. from 6:00 to 12:00 p.m. Although only 32 students attended the dance was considered successful. Low attendance was attributed to intradorm communications failure. Mrs. Ruggs of Brooks House and Mr. Raymond of Wheeler acted as chaperones.

Webster House:

Saturday, 13 March - I.B.M. Dance for the entire complex. Two bands played in Grayson and one in Webster. About 200 were in attendance. Refreshments were served. Considered very successful.

Tuesday, 23 March - Joint dinner with Field House followed by coffee in the lounge. Karl Geller entertained with guitar and song. Approximately 128 students attended. Considered worthwile.

Wednesday, 3 March - Lecture and discussion by Professor Karl Hendrickson (Civil Engineering) on the subject "Foundation Failures at UMass" About 30 students attended. Coffee was served. The program was well arranged and interesting.

Tuesday, 9 March - Dorm dinner and coffee hour with the men of third floor east acting as hosts. Eight faculty fellows, some with their wives, were the guests. Approximately 50 people participated in this very successful program.

Tuesday, 16 March - Dorm dinner and coffee hour with second floor west as hosts. Faculty fellows and their wives were the invited guests. About 50 participants. Very successful.

Tuesday, 23 March - Professor Milton Cantor spoke on "American Ethics and Foreign Policy." A discussion period followed this speech. The affair was held in the third floor east student lounge at 8:00 p.m. About 25 students attended.

Summary:

In the month of March, twenty-five social events were reported as compared with sixteen for the month of February. Nine of the March events were informal lecture and discussion sessions. Six events involved the University dining facilities. Eight "mixers" or closed dormitory dances were held, and four events featured art or music as the topic to be discussed or enjoyed. Subjects discussed ranted from sex to foreign policy, attendance varied from 12 to 500, and one UMass man was ceremoniously rendered a bit uglier. It was a busy month.

Social Evaluation Brief
For Men's Residence Halls
Month of April, 1965
Compiled by John H. Horton
Undergraduate Assistant for
William H. Burkhardt, Jr.
Assistant Dean of Men

Baker House:

Wednesday, 21 April - A discussion on the subject "Christianity, So What?" Guest for the evening was the Reverend Robert Hill of the intervarsity Christian Fellowship. About 25 students attended what proved to be a thoughtful discussion.

Butterfield House:

Friday, 2 April - Dance, few students in attendance. The dorm social chairman attributed the slack attendance to the attitudes of the girls who "gave various excuses for not coming to the dance."

Wednesday, 21 April - Dr. Thomas Fraser of the Anthropology Department was a guest for dinner at the South Commons. He later lectured on his experiences in South Thailand. A question and answer period followed the lecture. About 25 students attended. The program was successful although the lecture format was criticised for this type of program.

Wednesday, 28 April - Coach Gladchuck showed films of last year's football teams along with films of the intramural all-star football game. About 40-45 students attended. An informal discussion followed the serving of refreshments. The program was considered very successful.

Chadbourne House:

Sunday, 2 May - Open House, about 150 participating, considered very successful.

Sometime in April - An informal discussion with Coach Schmitz of the Athletic Department. About 25 students attended. Program was instructive.

Grayson House:

Wednesday, 17 March - Lecture #1 on the Baraque. Dr. Greenbaum of the History Department was the speaker. Lecture entitled "History of the Baraque." Abouth 30 students were in attendance. The program was very well received. A discussion followed the serving of refreshments.

Sunday, 21 March - Sunday afternoon music hour. Records owned and operated by Peter Jez. 20 to 30 students came by. Evaluation was that it was "good music to listen to."

Sunday, 4 April - Jazz concert with records and phonographic manipulation by Frederick Babakian. 10 to 15 students enjoyed the music.

Tuesday, 6 April - Lecture #3 on the Baraque. Dr. Barron of the English Department spoke on "English of the Baraque Period." The lecture was followed by refreshments and discussion period. Abouth 30 students attended.

Sunday, 25 April - Sunday afternoon musicale with Mrs. Edna Tilsanden, soprano, and Mr. Maijoice Field, accompanist. About 25 students attended this excellent program. Low attendance was attributed to conflicting activities.

Thursday, 29 April - Mr. Ned Mosher presented three Charlie Chaplin movies. More than 125 students attended. There was no charge; a coffee hour followed. Only complaint was that daylight savings time required later scheduling of movies since the recreation room cannot be blacked out.

Sunday, 2 May - Concert - Ernest Wallfisch, Viola and Lorry Wallfisch, piano. 30 students attended. Excellent concert.

Greenough House:

Wednesday, 31 March - Dr. Jay Savereid of the Speech Department was guest for a coffee hour and discussion. Eleven students attended this interesting discussion.

Saturday, 3 April - Closed dance in Greenough cafeteria. A fee of 25 cents was levied upon those who wished to attend. About 30 students did so. The dance was rated very satisfactory. Refreshments were served.

Friday, 23 April - Dance by invitation at Farley Lodge. The dance was semi-formal, the hall was decorated and refreshments were served. Twenty couples were in attendance. It was an excellent evening.

Saturday, 24 April - Picnic and party held at Robin Farm in Belchertown in commemoration of "Greenough Weekend." Several Greenough alumni returned for the festivities. About 60 people attended what was considered a very successful party.

Hills House North:

Wednesday, 28 April - Dr. David Leonard talked on the topice "Teaching at the University." More than 80 students attended. Considered a great success.

Mills House:

Friday, 23 April - Mixer at Hamlin House. About 150 students in attendance. Considered very successful.

Tuesday, 6 April - Housing's Mr. Thomas attended our Counselor In Training Program. Refereshments paid for by head of residence. 10 people attended.

Thatcher House:

Tuesday, 30 March - Dr. Gage gave a talk on narcotics. Movies were shown. Among the 65 attending were special guests Dean Burkhardt, other heads of residence, and girls from the Quad. Program was very successful.

Wednesday, 28 April - WMUA broadcast from Thatcher at an informal mixer. Attended fairly well. Thatcher, in the future, intends to hold dances by invitation only.

Webster House:

Tuesday, 30 March - Dorm dinner. Approximately 50 attended. Special guests were Mr. Barnard and the faculty fellows. A coffee hour followed the dinner.

Sunday, 4 April - Concert: Dr. Robert Stern, Pianist, and Miss Dorothy Ornese, Soloist. Topic was "A Look At Twentieth Century Music." Attendance was poor because of conflicting activities.

Saturday, 17 April - Mixer, featuring a band from Boston. About 375 attended. Financed by admission fees. Very successful evening.

Tuesday, 20 April - Dorm dinner followed by a coffee hour at the dorm. Approximately 40 people attended. Special guests were the faculty fellows and their wives.

Tuesday, 27 April - Dorm dinner followed by discussion at dorm. Speaker for the evening was Dr. Varley of the English Department. Dr. Varley showed slides to illustrate his talk on Japan. About 50 students attended this very successful program.

Summary:

The month of April saw 30 social programs as compared to only 25 reported for March and 16 for February. The most popular events seemed to be picnics and dances although discussion sessions remained the most frequent event. Houses are beginning to report the exhaustion of the funds.

A N N U A L R E P O R T

A P P E N D I X I I

(INDIVIDUAL RESIDENCE HALL REPORTS)

BAKER HOUSE, 1964 - 1965

Baker House began its 1964-1965 school year with a Counselors' buffet dinner and reception at the dorm. Mrs. Hunter served as hostess for the dinner and led the brief meeting which followed. Later in the afternoon, we opened our doors to the incoming freshmen and, despite a conflicting counselor-training program, managed to complete the hectic task of freshmen registration with dispatch. Coffee and donuts were served to the new arrivals. Later in the evening, we conducted a mass meeting of our freshmen in the lobby. The men were subsequently directed to accompany their counselors to their respective sections where informal discussions of dorm life were encouraged. The evening ended back in the lobby where the freshmen and the counselors, along with Mrs. Hunter, enjoyed a social evening complete with refreshments. Our program of orientation was, unfortunately, interrupted by the Revelers, who, in their enthusiasm, decided to begin the freshmen rally an hour ahead of schedule.

As the season progressed, interest grew in the expanded intramural athletic program on campus. Coach Gladchuck was invited to the dormitory to explain the revised intramural organization. His visit was well-received and inspired the conception of four teams. Since that time, the Baker Bruins, Buffaloes, Barricudas, and Broncos have represented Baker House in every major intramural activity and have compiled an admirable record.

On Saturday afternoons in the autumn, the men of Baker, in keeping with collegiate traditions, turned their collective attention to football and the victorious Redmen. Following each home game, we opened our formal lounge to the men and their guests. Refreshments were served and entertainment was provided by the more talented of our residents. For the Homecoming Game, the men turned out in force to construct and carry our man-powered, prize-winning float. Exhausted, we conserved what remained of our strength for those final exams which had so suddenly become a tangible threat to our academic careers.

Our second semester began on a more intellectual plane. After a thoroughly enjoyable Winter Carnival Weekend, we settled down to a series of private D.V.P. discussion sessions. Among those prominent faculty members invited to join us for dinner and discussion were Dr. Ross of the Physics Department, Dr. Sweeney of the English Department, and Dr. Belz of the Art Department. All of these guests were well-fed and enthusiastically received.

As the weather warmed so, too, did the spirit and inclinations of our men. Thus, with spring full upon us, we planned and executed the first annual dormitory picnic. For our location, we selected Look Park; for refreshments hot dogs, hamburgers, potato chips, and soft drinks were purchased; and for entertainment, we planned eating, ball playing, grassing, and the henceforth traditional counselors-versus-everybody softball game. The picnic ended a complete success, and the men returned to Baker tired and well-fed, and the counselors retired victorious.

With summer approaching, we got down to the serious business of selecting and training next year's counselors. In three special meetings, we conducted informative case history studies of dormitory problems. These sessions were particularly valuable in that we were able to become better acquainted with next year's staff while preparing them for the responsibilities they were to assume.

Then, came finals.

Mrs. Lillian M. Hunter
Head of Residence, Baker House

BRETT HOUSE, 1964 - 1965

My first year as Head of Residence has been a rewarding one. It was not all smooth sailing, but I feel that, on the whole, we have had a successful year.

We have had many and varied functions. Speakers: Dean Field, Dr. Gage, Dr. Leonard and, with Brooks, Mr. Allen; mixers with Brooks, Dwight, Mary Lyons, Hamlin, and Emily Dickinson; a closed dance (couples only) at Christmas; open house with egg nog at Christmas which lasted four days; a hootenanny were the high spots of the year.

The intramural sports program provided a great many of the boys with a good outlet for extra energy.

In the basement study, we have had a lock put on the door and a shelf in the corner of the room for our t.v. which came in January. Due to the fact that there is as yet no jack for the t.v., we have had to use the lobby for viewing. This study will be our "rec" room next year.

The "L" room has been walled to make two rooms, one of which will serve as a basement study next year.

We have received a lovely silver service, new spoons, and four smoking stands.

All mattress covers were replaced with heavy zippered ones which are very practical.

We have had four broken windows, a couple of mirrors removed from the walls, and a spate of bannister removals. But, all these things have been well-handled by maintenance.

A buzzer has been installed leading from the Head of Residence Apartment to Room 104 for emergency use. A telephone jack has been installed in the Head of Residence Apartment bedroom for night use of the telephone.

The counselors have done an excellent job, as has the House Council.

All in all, it has been a fine year at Brett House.

Mrs. Frances L. Nutter
Head of Residence, Brett House

BUTTERFIELD HOUSE, 1964 - 1965

Indications at this time are that we will have fifty-five freshmen residents at Butterfield in September, 1965. It seems, therefore, that there will be the need to assign more rooms as triple resident rooms.

Programs conducive to cultural growth during the past year were held on December 15 (Professor William Ross), April 21 (Professor Thomas Frazer), and April 28 (Coach Gladchuck).

An effort will be made, in the interest of better student attendance, to secure lecturers for the 1965-1966 program at times far enough removed from examination or test periods in the belief that a greater number of students would be able to attend. Students will not attend a lecture, however much they might like to, if it is scheduled close to examination or test periods.

House officers for 1965-1966 were elected at a meeting for that purpose during April. The slate was an especially good one and each candidate was elected without dissent.

Between the April meeting and the one held in May, the House Council met and made out the house program and budget for the coming year.

Butterfield House fell heir to a very nice six-piece silver service, a water pitcher, and two serving trays much to the surprise of the recipients. To show their own appreciation to the University administration, the men of Butterfield bought with their own money a fine crystal punch bowl, ladle, and cups to be the property of and to be used by the residents of Butterfield House.

A very real need still remains for better lighting in the large study room downstairs. The light is truly inadequate to such an extent as to appear to be detrimental to one's sight.

Mrs. Myree W. Richmond
Head of Residence, Butterfield House

CHADBOURNE HOUSE, 1964 - 1965

The normal capacity of Chadbourne is 152; we started the year with 166 students. Twenty-six rooms were tripled and two single rooms were doubled. At the present time due to flunk-outs, drop-outs, and others either moving to other dorms, off campus, or to fraternities, we have 146 students.

We are very proud of the record we have made in intramural sports. Our Maroons won and were dorm chaps in football, basketball, and softball. In volleyball, we won the league championship. We were presented the Stephen Davis Award for Intramural Excellence. We entertained Coach Gladchuck who presented two trophies and pictures. Deans Field and Burkhardt were both with us and brought their best wishes. The Collegian sent a photographer to take pictures of this presentation. The Coach showed pictures of some of the outstanding football games. Coffee and cookies were served. We all enjoyed the evening. We have another trophy due us that we will have presented at a later date.

I personally entertained the boys at Christmas and have served coffee and cake or cookies many times.

The boys worked hard on a float for the Homecoming Parade.

It has been very hard to interest the Social Committee on having a speaker. I think this next year with the new Chairman we will be able to have many events.

A new t.v. was purchased this year and has been enjoyed not only by our boys but by boys from the other houses that do not have t.v. After we had some tables chairs broken by students standing on them to see t.v., we set up rows of chairs much like a hall and have cautioned the boys not to move them.

There are many things we need here in Chadbourne; such as, the kitchenette put into working order and new equipment added. Whenever we have an affair of any kind, I, as Head of Residence, have used my own things and a few things have been broken. Some of these things cannot be replaced. We have just gotten a silver service set; but up to this time, I have had to use my own set. More study rooms are badly needed. Our main lobby needs a great deal of work tomake it not only brighter but more attractive to parents and students when they arrive. We have a new electric water cooler installed in the main lobby, which is much better and the students appreciate it.

Another year, I would like to have a tea for the freshmen and their parents as they arrive. Also, I would like to do the same for the seniors just before they graduate.

I have enjoyed this, my first year as Head of Residence, and hope to have a much better report of activities next year.

Mrs. Anna L. French
Head of Residence, Chadbourne House

GORMAN HOUSE, 1964 - 1965

The beginning of the academic year 1964-1965 saw 365 students in Gorman House whose facilities were strained by thirty-five triple rooms. However, since many students soon moved into fraternities and off-campus apartments, the housing problems were greatly alleviated.

At the beginning of the first semester, Coach Gladchuck held an informal discussion in the Gorman lobby, where he explained his ideas for a new intramural system. His plan for dividing the dorm into divisions by floors and assigning each division a name (Oaks, Pines, Elms, and Maples) for participation in football, volleyball, basketball, and softball was enthusiastically accepted. The records of the third and fourth floors in these events were very good.

Six other speakers were invited to Gorman during the year. Dr. McBride was well-received when he spoke on sex and brought an accompanying film. Other speakers included Dean Field, Dr. Varley, Professor Ross, Assistant Coach Schmidtz, and Dr. Pippert.

In preparation for Homecoming Weekend, a contest for the dormitory members was held to determine the theme of the Gorman float. The float was completed on time due mainly to the industry and devotedness of a small group of dormitory members.

A Chirstmas party and dinner dance was held for the Gorman students. Plenty of good food and some unusual entertainment was enjoyed by approximately fifty students.

Appreciation was shown on the part of the students for the coffee which was given to Gorman House during the mid-year exams. In addition to the coffee donated to the house, Mrs. Hale made an extra five or six gallons each night and served cookies to the boys on at least two of the nights.

Because of the lack of snow, the boys were unable to build a snow sculpture for the Winter Carnival festivities, but they particdpated eagerly in the other activities offered on campus during the weekend.

As time progessed, we at Gorman House have been able to overcome many difficulties; however, we severely miss the use of a kitchenette and a public room for guest speakers. One of the students in Gorman has drawn plans for a twenty-five foot extension to the lower lobby and a kitchenette for the basement as his part to the solution to the problem of these sorely needed facilities.

With the exception of a very small number of student problems, Gorman has been a very good dormitory this year. Each student, it seems, feels a bond between his college life and his section, his counselor, and his study room. There is a unity between the students both within the section and between the individual sections; the boys eat together, study together, and share the same social activities. The division of the boys into sections, each with its own study room, has been a great advantage both to the boys and the dormitory staff in maintaining the harmony needed in such a large dormitory.

As a dormitory gift, the house has purchased a hundred-cup percolator for use in social events and study breaks during the final exam periods. The coffee which is presently being donated to Gorman during the final exams is, once again, greatly appreciated. Mrs. Hale is again making an extra five gallons per night to meet the needs of the boys.

As a final event in the year 1964-1965, the dormitory held a grinder party, for the Gormanites only, on Monday night, May 31.

Mrs. Eugenia L. Hale
Head of Residence, Gorman House

DAVID GRAYSON HOUSE, 1964 - 1965

Grayson House opened in September, 1964, with a very full house. There were twenty-two triple rooms and each of the twelve counselors had a roommate. Physically speaking, the place was a mess. Facilities were extremely limited and furnishings were not here. Workmen were everywhere and the first floor looked as if a bomb had struck.

Gradually, our rooms were untripled and all counselors except three had single rooms. (These three kept their roommates by choice.) New furnishings were arriving every day and on Homecoming our lounge was nearly done. There were many petty complaints but, on the whole, the morale of the students was good.

As a part of the Residential College, we have a Master, a Preceptor, a Faculty Resident, and Faculty Fellows. We owe a great debt of gratitude to these people who have given freely of their time and have shown so much interest in the students and in our program. We had a dorm dinner each week after which we adjourned to the dorm for either a lecture or an informal discussion and coffee. Our Cultural Committee, comprised of students, meets with Dr. Barron to plan our cultural activities. These include concerts, movies, and speakers. Dr. Barron has been most helpful and generous with his time. Our House Council has been purely socially minded. It has planned dances with the other dorms in the complex, planned a float for Homecoming, and has participated in two dorm breakfasts with the girls' dorms; all in all, they have spent their money wisely.

Our athletic teams have not been outstanding; however, we have participated in all sports. Our bowling team won the dorm championship.

The dorm library, provided by the University, has many volumes--fiction, non-fiction, periodicals, and reference books. Our record library has been furnished by the students, and $100 was voted from the dorm treasury for additional records.

Three of our study lounges have been enclosed and these, along with the main lounge, serve as classrooms for thirty-five classes each week.

Our worst problems are noise and bad locks. We hope that carpets in the halls will cut down on the noise. We also look forward to having all study lounges enclosed. Mr. Bray and his helper have been very helpful with the locks and plan to have them all in fine working order next September.

We appreciate the red carpet in the main lounge, the piano, stereo, t.v., and the beautiful furnishings. We are now having the grounds landscaped.

In the absence of weekend janitorial service, I would like to ask once more for some money for Grayson to pay a student to clean up indoors and outdoors for the weekends. This is done in all men's dorms except the Orchard.

Mrs. Edna A. Cook
Head of Residence, Grayson House

Greenough opened in September with 167 residents, forty-nine of whom were freshmen and about thirty transfer students (thirty triples). Letters of welcome were mailed to the freshmen late in August.

A meeting of the new residents was held the second day. We followed the pattern of previous years by introducing the head of residence, all counselors, the house president, and the social and athletic chairman. Each responded with some pertinent information spiced with considerable wit. It was an enjoyable as well as profitable occasion.

House Council Meetings were held regularly throughout the year. We have endeavored to stress academic, social, and athletic interests within the house. The Greenough Incentive Prize was awarded each semester to the highest gain in cumulative average achieved by a student.

On November 19, we planned a special meeting for freshmen, transfers, and other students. This was an effort to better acquaint them with the preparation for and utilization of Counseling Day. Two of our counselors spoke. The House President who had been trained as a Study Skills Counselor gave a very comprehensive talk on ways of improving one's study habits. Dr. Berenson was present and available for help and advice. About sixty students attended and many expressed appreciation.

Interest has been very good in intramurals. Three of our counselors played regularly. A water cooler was installed on the first floor. A buzzer system now connects the head of residence's apartment with a counselor's room on the first floor. The telephone room ceiling has been covered with acoustical tiling. Some used furniture and study carrels were placed in the basement; lamps for the lobby and study room, and a tea service were obtained. Full length screens were added to the mail room, telephone room, and room 108.

Some students miss the cafeteria, but all agree that the food is better at the new South Commons. Being able to eat in one's house is certainly more conducive to improved social relationships. However, while some would like to see the cafeteria opened for regular meals, the majority are against any type of "snack bar" in the basement.

The following recommendations are offered:

1. One more counselor is urgently needed for the fall.
2. Acoustical tiling on the ceiling in the Head of Residence's Apartment; needed also to cover the entire lobby ceiling, or at least some acoustical material on the wall, in the lobby next to the apartment.
3. Screens to replace the missing ones.
4. A water cooler on each floor.
5. Storage cupboard for tea service, dishes, etc.

Mrs. Edith L. Robinson
Head of Residence, Greenough House

HILLS HOUSE NORTH, 1964 - 1965

During the year, 1964-1965, Hills North has invited Hills South to partake in its activities as our joint lounge is the only available place for gatherings.

Our house president was a delegate to the S.W.A.P. Conference; enthusiasm for an active year was his desire. Considering the number of fraternity men housed in Hills North and the apathy of most of the house members, our House Council was very successful.

Our counselors joined early in the year with the counselors of Hills South for a talk with Dr. Janowitz in Mrs. Williams' apartment; refreshments were served.

Hills North has participated in the intramural program, but no championships to our credit.

A few disciplinary problems have arisen, which is expected; but the year has gone fast, and I trust the coming year, with this experience, will prove as much of a challenge as the past.

Mrs. Grace B. Glass
Head of Residence, Hills House North

HILLS HOUSE SOUTH, 1964 - 1965

Physically, Hills South is still the same with one large lounge serving two dormitories for social activities and as a study room.

The fraternities, taking in freshmen so early in the year, provide much of their social life as this is primarily a fraternity and athletic dormitory.

This year we participated in the intramural program and quite a few students played in the various sports. The Moody Blues of the Independent League won the campus championship in softball. The team was composed mostly of Hills South men with a few from Hills North.

Dances with an orchestra seem to be the one entertainment that most students enjoy. We will try to have more next year. Lectures or talks do not seem to rate very high on the list.

In conclusion, I think Hills South has had quite a successful year with few disciplinary problems.

Mrs. Gladys Williams
Head of Residence, Hills House South

MILLS HOUSE, 1964 - 1965

I am basing this report on my last year's report which explained quite thoroughly the two aspects of residence hall living.

I. The Physical Aspect:

The improvements in the area this year are not as numerous as those of last year. There are, however, two major improvements.

A. We received seventeen new lamps of which ten were placed in the Recreation/Study Room and seven upstairs on the first floor in the Reception Room; and

B. we also had a water cooler installed in the main lobby which was sorely needed.

There are still many improvements needed, of which I referred to in my report of last year:

A. Complete new furniture in all the rooms;
B. Study rooms or other areas for complete relaxation;
C. A larger reception area on the first floor;
D. Sound-proofing of the dorm in one way or another;
E. A kitchenette downstairs in the basement; and
F. Solving of the problem of noisy doors and screeching furniture.

II. The Human Aspect:

I would say that Mills is still academically orientated, although there are some students who complain that the atmosphere on this campus is anything but academic.

Socially, Mills House has been rather inactive. We started the semester off, however, by having a dance in the Student Union; but because of a long week-end, the dance was poorly attended. We lost close to $200 which drained our finances to a minimum.

When it comes to sports, Mills House has been very busy in intramurals; the goals of the program, as far as they concerned Mills, being accomplished 100 per cent. Following the intramural program, Mills House has two teams, the Birches and the Cherries, in football, volleyball, softball, basketball, and bowling. Mills House was awarded trophies in the following sports for the following purposes:

A. Football - for best defense;
B. Bowling - won the East Dorms' League; and
C. Basketball - one of the two teams placing third.

Mrs. Regina Korpela
Head of Residence, Mills House

THATCHER HOUSE, 1964 - 1965

In September, we held an orientation with counselors from Butterfield, Plymouth, and Thatcher House. Since Thatcher was a new dormitory for all residents, I felt the need of a meeting with the sophomore class which was well received.

Our Homecoming Dance and Float Parade was a big success. Thatcher and Mary Lyon combined efforts in building the float which was later given a front-page honor by the Greenfield paper with pictures of the float.

We were fortunate in having good counselors and a very good House Council Committee this year. Our House Council Officers were mostly upperclass students in good standing and with a 2.0 average which proved to me that juniors and seniors are better candidated for the House Council Committee.

Counselors have worked with the House Council very well. Our fourth floor students who are mostly from Baker gave us a bit of trouble, but soon after second semester began they became orientated to Thatcher House rules.

On Graduation morning from 8:00 a.m. to 12:00 noon, I closed with a senior breakfast for graduates of Thatcher House.

Mrs. Bella N. Pierce
Head of Residence, Thatcher House

NOAH WEBSTER HOUSE, 1964 - 1965

In September, 1964, the men moved into the unfinished dormitory. There was no water for five days. There were twenty-two tripled rooms and the counselors were in double rooms.

The dormitory was opened by Vincent DeAndrea, a graduate student acting as head of residence, because the Head of Residence was ill.

The new Head of Residence, Mrs. Lillian Ryan, was given a reception on October 16 and was able to move into her apartment on October 24 during Homecoming Weekend. It was an exciting weekend for all as the dorm won first prize in the float parade.

After several weeks, the dormitory was finished except for a few important details; such as, rugs in the corridors and partitions in the study lounges. These were important because the study conditions were very poor because of the acoustics. Partitions were installed in three of the lounges between semesters and classes were started. At present, there are thirty-six classes being held in the dormitory. We are now waiting for the rugs which will further improve the acoustics and study conditions.

The main lounge is furnished beautifully, and the men enjoy entertaining their guests there. The recreation room gives the men a chance to relax with t.v. and ping pong; it is also an excellent place for their dances.

Our social and cultural program has been successful considering the difficulties of the first semester. There have been dormitory dinners every week with after-dinner coffee served in the lounge. Many special guests have been invited as well as our Faculty Fellows and their wives. Two of the dinners have been mixed affairs with Emily Dickinson and Eugene Field Houses.

Athletically, there have been two intramural teams participating in football, basketball, volleyball, and softball. The basketball team was in the finals.

Mrs. Lillian M. Ryan
Head of Residence, Webster House

WHEELER HOUSE, 1964 - 1965

The physical condition of Wheeler House remains the same as last year, rather depressingly grimey. A few maintenance corrections have been accomplished such as, replaced floor tiles at the doorways, a bicycle rack, new study desks for the study hall (but without lamps), two built-in ironing boards, and the position of an "Exit" sign was changed.

Four of our six lamps were stolen from the lobby, three of our four pole lamps from the study hall, one ironing board from the laundry (the only one before the built-in ones were installed), two of four smoking stands, as well as our framed history of William Wheeler. We have replaced the history at the expense of dormitory funds.

I have submitted plans for improvements in Wheeler House facilities for social and study programs. The thefts of the few things we had has been discouraging, but there seems to be no way to combat it. I am still hoping my request for full-length screens, reinforced, for the stairwells will be honored and the screens installed during the summer.

Mrs. Emily G. Raymond
Head of Residence, Wheeler House

DEAN OF STUDENTS
OCT 27 1964

UNIVERSITY OF MASSACHUSETTS

MEMORANDUM

ANNUAL REPORT OF DEAN OF WOMEN

1963-64

1. Appropriation

	1961-62	1962-63	1963-64
Student Labor	$ 24,083.	24,307.	27,256.
Travel	300.	300.	300.
Printing	0	0	0
Repairs	88.	88.	125.
Special Supplies	200.	150.	175.
Office and Administrative Equipment	750.	750.	750.

2. Personnel

	Sept. 61	Sept. 62	Sept. 63
Professional	2	2	2
Dean of Women	x	x	x
Staff Assistant to Dean	x	x	0
Assistant Dean of Women			x
Heads of Residence	11	12	13
Secretarial	1	2	2
Senior Clerk & Steno	x	x	x
Junior Clerk & Steno		x	x

3. Organizational Chart attached

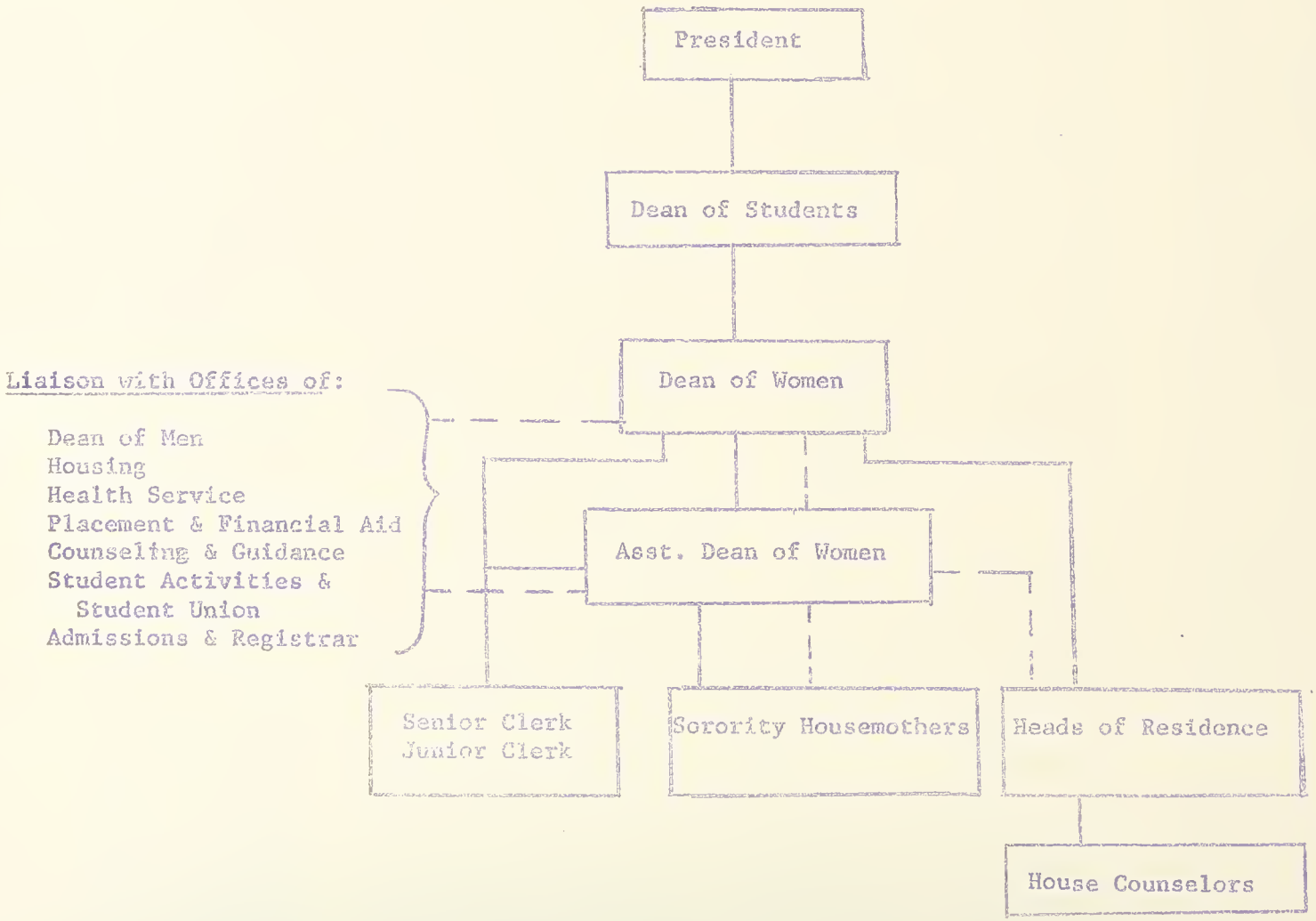
4. Students or Clientele

Undergraduate women	2134	2381	2757
Special	67	75	113
Stockbridge	13	20	20
Graduate	175	245	339
	2389	2721	3229

In Sept. '63:

89% of undergraduate women live in 13 dormitories
6% of undergraduate women live in 8 sorority houses
5% of undergraduate women commute

3. Organization Chart



5. Professional Activities

In fall of 1963 I completed a four year term on the Executive Board of the Massachusetts Association of Women Deans and Counselors. This has been very valuable for the wide acquaintance it has given me with High School Guidance Counselors, so helpful in University of Massachusetts relations and in understanding problems of transition from school to college.

I have resisted assuming any new professional duties because of the heavy pressures in my own office. My "contribution" was the Assistant Dean of Women, Mrs. Gonon, who served very ably as President of the local branch of the American Association of University Women. At present I carry only light off-campus professional duties as one of several Deans advisory to the Massachusetts Society for the University Education of Women and as an Incorporator of the Horace Smith Fund (both scholarship granting groups) and as member of the National Association of Women Deans and Counselors membership evaluation committee. I felt I should not participate in the National Deans Convention April '64 because of sick-leave I had taken and the distant meeting place. In April '65 both the Dean of Women and the Assistant Dean should attend this important professional session.

6. Major Accomplishments

The Dean of Women's Office serves as the focal point for information, counseling, record keeping, and administration of women's affairs--to extend and help women fully to utilize their opportunities for education.

As the one office where a composite of information regarding each woman undergraduate is available we serve as "generalists," counseling and serving hundreds of students whose need for information or help is "normal" and usually temporary. With close colleague relations with the mental health, guidance, and other specialists we refer students in need of particular or continued help and are very frequently called upon for background information by the specialists and by faculty members, advisers, scholarship donors, or employers.

It is important for the University, and for women students themselves, to be cognizant of the varied and changing roles of women so that in the perspective of their whole lives the years in college can be most valuable in terms of their personal and social growth as well as intellectual achievement. It is our objective to help women students to fulfill their best potentialities and establish firmer commitments to good values and standards.

I and the Assistant Dean of Women have tried in the following ways to interpret and extend these objectives across campus:

1. We have worked with Student Personnel Administrative Council and faculty colleagues, individually and in University Committees and Councils;
2. have recruited, selected, trained and supervised our staff of 13 Heads of Residence of Women's Dormitories, and the 103 student House Counselors

with whom they work;

3. have recruited, selected, trained and supervised Housemothers of 10 sororities and the elected officers and Corporate Boards for the same;

4. have advised elected student leaders of the Senate Women's Affairs Committee and Women's Judiciary Board, for more effective self-government;

5. have advised directly, or in liaison, organizations for women--Alpha Lambda Delta, Mortar Board, Scrolls, Interdorm Council, Panhellenic Council, Gamma Sigma Sigma.

The year-round operation of the University requires continuity in the services of our office and residences throughout the summer for the enlarging Summer School and the Freshman Pre-College Orientation Program. The summer of 1963 was particularly demanding as these programs were heavy and we also had to continue responsibilities (which we had hoped to pass to Housing Office) for room assignments for women for the fall semester. Vacation time was practically nil. We participated in the search and selection of a Housing Officer for Women and Mrs. Gonon accomplished the transfer of room assigning procedures which Miss Jan Clement ably carried for second semester.

A lift in morale came with the long overdue change of title to "Assistant Dean of Women" and an advance in salary for Mrs. Gonon.

It was an appropriate step forward for Heads of Residence to gain "professional status" in title but at the same time very disturbing to their morale to have to sign twelve month contracts, which implied little cognizance of the nature of their work, which, in women's residences, makes demands on them at any time during the day or night, seven days a week. To meet the University's responsibility for its women students and to ease the load of the Head of Residence additional "area assistants" are needed on the Dean of Women's Staff. This assistance and salary increases, substantial enough to allow a Head of Residence to extend her one-month-allowed vacation, if she so desires, are urgently needed as soon as they can be provided. A major achievement is to attract and hold women of the present high calibre in these strategic positions.

"Major accomplishments" are achieved by these Heads of Residence who, advising student leaders, create an environment in the women's residence halls which is conducive to study and academic achievement and fosters the personal and social growth of the individual student residents. In 1963-64 a wide variety of activities (list attached*) enriched the life of resident women students.

*Examples of the many social and cultural activities conducted by student committees, advised by their Heads of Residence, in women's dormitories, 1963-64 (taken from reports of dorms):

Variety of affairs to welcome Freshmen and to welcome and orient transfers.
United Nations Week Coffee Hour and program with Government Department speaker, foreign students and faculty guests.
Coffee Hour and discussion with Art Department faculty guests.
Coffee Hour with History Department faculty guests.
Coffee Hour with faculty of several different departments and discussion on study methods.
Coffee Hour with Placement Officer, Miss Antunes, on job opportunities for women.
Slides and Talks by students who studied abroad Junior year.
Slides and Talks by students who studied and worked abroad.
Slides and Talks by foreign student guests.
Discussion with Peace Corps volunteers.
Musicale - Piano and Voice Recital by students and guests.
Coffee Hours with faculty guests honoring high achievers after the first semester.
Picnics, Suppers, and Parties honoring Seniors, with recognition of individual achievements, graduate fellowships, new jobs, etc.

Talk and Question Periods with Dr. Gage.
Open House for Parents and friends; also Open House at Homecoming for former residents.
Mother's Day tea.
Rec Room "dorm suppers" or "Corridor suppers" or "Dorm Sunday Breakfasts" usually open to all who wish to sign up, put on by corridors in turn.
Hallowe'en Party with improvised costumes, for dorm residents.
Each dorm participated in "Interdorm Sing" at WPE gymnasium (lots of originality in songs,costumes)
Each dorm participated and decorated a Float for Homecoming Rally Parade.
Each dorm participated in some Christmas - Chanukah Holiday decorating and festivity.
Service in community, or at State Hospital - gifts, Christmas decorations.
Women's dorms cooperated with 11 different men's dorms on a variety of dances, parties, service projects.

Note: Such cultural and social programs could be greatly augmented in all dorms with funds made available by the University in recognition of the educational values in well-conducted residence halls.

Because of the non-completion of the new dormitories in the Orchard Van Meter House was assigned to women. The challenge of "personalizing" life for 500 students, mostly Freshmen, living in crowded conditions, was almost insurmountable. By organizing the huge structure in two "Houses" - Van Meter North and South - each with its own Head of Residence and House Council, but sharing cooperatively a common office and center lounges, a successful year was achieved.

With the transfer of Van Meter Dormitory to women and their assignment to Butterfield and Greenough cafeterias for board, many problems were presented because "the hill" had been exclusively for men for several years. Through the hard work and cooperation of excellent Heads of Residence and House Counselors of both women's and men's dormitories (Van Meter North and South, Greenough, Chadbourne and Butterfield) problems were resolved while they were still small and major difficulties were avoided.

A new plan which aided greatly, especially on the hill, was the appointment of Dining Hall Counselors (most selections from dormitory Counselors) who served as liaison between students and dining hall management, interpreting requests of each to the other, promoting better attitudes and conduct. They also instituted some guest dinners and enjoyable social occasions in the dining halls which helped to foster good relations.

A "major achievement" in the University was the change in admissions towards a policy of accepting deserving applicants without discrimination on the basis of sex, a recommendation I have urged for some time. It was heartening to have an increase in women's enrollment in Sept. '63 and plans for approximately equal numbers of women and men Freshmen in Sept. '64.

My time for an anticipated January vacation trip changed into hospitalization and two months of sick-leave. I greatly appreciated the understanding and ready assistance of the Dean of Students and the President especially in arranging for the temporary appointment of Mrs. Clarence Shute (formerly on my staff as a Head of Residence) to assist with office interviews. Mrs. Isabelle Gonon, Assistant Dean of Women, carried a heavy program very capably and with the fine help of secretaries and Heads of Residence the emergency was met very well.

7. Special Projects

When the Trustees made funds available for "Work Scholarships" a plan was developed with the cooperation of the Dean of Men's, Women's, and Counseling Offices for Student-led co-ed discussion groups of Freshmen, meeting in various dormitories. It was a good experiment with success ranging from high to low, response in attendance dwindling as students became more involved on campus. Another less ambitious plan provided in several dormitories student advisers on "study skills." The plan is not being continued because of little response to use the resources but it yielded some good results. Those gaining most from both projects were the work scholars themselves, which was the main objective of this very useful program.

We have made good use of IBM grade average lists of women students

by class in rank of cumulative average, also in alphabetical order. These were used for eligibility for various honors and organizations, and were useful for reference in counseling student leaders, probation students, etc. Now that college residence will be punched into master cards other information could be machined for aids in counseling.

8. Future Plans and Needs

The "Residential College" is an exciting concept for enriching the residence environment with more educational and cultural activities and it provides a particularladvantage in having "faculty fellows" attached to each house to promote more personal association of students and faculty.

Desirable as it may be to have some faculty in residence, it is to be realized they will have neither the time, interest, nor training to carry on the individual counseling throughout the year with all residents which has been of outstanding value in women's residences at the University of Massachusetts. It is the Head of Residence who, working with her House Counselors, has the responsibility for knowing the residents well enough to give guidance in the frequent emergencies and problems of students as they adjust to the freedom and demands of the University, especially in their first year away from home.

She has the responsibility also to know them sufficiently well to write annual personal evaluations which are indispensable for a good student personnel program. Such evaluations are written in consultation with House Counselors but should not be written only by student counselors, as these evaluations, filed and used in the Office of the Dean of Women, are references quoted (with discretion) for employers, faculty advisers, Admissions and Records Committee, and used in counseling and at times of crisis.

For effective personnel work a Head of Residence should have no more than 175 to 200 students. If over that number, she must have a mature, trained assistant also provided with a suite or apartment with telephone.

Building plans for dormitories must be changed to provide apartments first for this personnel and additional apartments for faculty living in each dormitory or wishing an office there.

There is urgent need for closer and more effective communication for planning dormitory facilities. We are fortunate and heartened to have a new architect whose designs add great beauty to campus but his consultation with those who use the buildings could avoid omissions and unmanageable arrangements.

Summer School - Suggestions to consider:

Admissions. The summer school semester is a "regular" semester for many accelerating students and for Special (summer and spring) Freshmen. They need and deserve to have fellow students in courses and in campus life who have been screened as carefully for admission on the same standards as they. Quality of classes and quality of social climate and campus life in general are now affected adversely by the presence of many transfers and special students admitted without careful screening.

Policy Handbook. Each summer school student should receive a Handbook with clear statements of University policies, rules, and procedures regarding attendance, academic honesty, adding or dropping courses, withdrawal from the University, grading system, advisors, etc. This might be a reprint or adaptation of the yellow section of the present Student Handbook which is published for fall semester students.

Perhaps a better recommendation is for a separate publication by the University Provost and Dean of Students (rather than by students using student funds) of University expectations and opportunities, policies, rules and procedures which should be in effect in all semesters.

Campus Life. Summer courses are intensive and students enjoy the concentration on studies without the conflicts of student activities and distractions so prominent during the September-June semesters. But more events, and events of improved quality, are needed to enrich the cultural and social life on week ends.

Regular University services in dining halls, library, and Student Union should be provided on holidays and week ends throughout the summer.

Need for shared goals

There is a dynamic quality about the University's rapid growth which is exciting and challenging to staff and students. But to work constantly at top speed requires more than energy; it requires understanding and commitment to shared goals. How often we yearn to "stay for a moment the shuttle of time to see the pattern it is weaving." The observance of our Centennial Year did much to interpret the past with pride and to point out new objectives. Because of the great turnover in student body and staff each year this "communication of goals" must be a continuing process so that new directions and policies can be more soundly developed, better understood, accepted, and followed.

Respectfully submitted,

Helen Curtis

Helen Curtis
Dean of Women

HC:as

UNIVERSITY OF MASSACHUSETTS
ANNUAL REPORT
ASSISTANT DEAN OF WOMEN
1963-64

The year 1963-64 has been a difficult year in many ways. Not only was it necessary to meet crises engendered by illnesses, but the growth of the University made it necessary to adjust to organizational changes which required the expenditure of much time and energy for developing orderly procedures. Confused as we were, it was difficult for students to know where to go for what.

Special Programs and Accomplishments

Perhaps the greatest accomplishment has been the meeting of successive emergencies with reasonable equanimity, if not without stress, thanks to the cooperation I received and the temporary staff assistant I was given, in the absence of Dean Curtis on sick leave.

I like to think that I have contributed constructively in effecting the transition of housing responsibilities from our office to a central housing office. Of continuing concern, though, and in need of clarification to avoid conflict and discontent, is the role of the Heads of Residence in relation to the Housing Office, and the manner in which demands are made upon the Heads of Residence and the Student Counselors.

Panhellenic, for which I continue to be the advisor, established this year a Junior Panhellenic composed of sophomore representatives from each sorority. A pre-rush Workshop for recent initiates contributed to Panhellenic, rather than cut-throat attitudes among the "gung-ho" sophomores.

New, too, was the establishment by Panhellenic of a President's Council chaired by the Panhellenic President. It has been an effective instrument for sharing matters of concern to sororities as well as to the University, with proposals for constructive concerted action. There is a growing recognition among sorority leaders of the need for examining their goals in relation to a changing University and for raising their sights.

Meetings with sorority housemothers could not be held as regularly as in other years due to other demands on my time. There were many consultations with me by individual housemothers seeking help in meeting specific situations in their roles as unobtrusive counselors, working with their officers to strengthen their effectiveness as leaders.

Meetings with Alumnae advisors of the sororities were of value in harmonizing alumnae and University expectations in relation to the roles of advisors and housemothers. These meetings helped the advisors of the two new chapters on campus to be aware of procedures. Individual conversations with them by telephone or in conference have contributed to mutual understanding and support.

I have participated in group discussions with guidance and mental health officers, with the assistant to the provost, the registrar, and representative faculty members, on matters relating to procedures for dropping courses or withdrawing from the University. There were discussions of the abuse of "incompletes" by students, the dilemma of faculty members in granting or denying them, and the consequent complications in the office of the registrar in adjudicating student eligibility for return versus fail-out. Emphasis in these discussions has been on values and attitudes of our under-achievers and their effect on the academic and social climate at the University.

I have participated in group discussions in a seminar of personnel and mental health officers of the Connecticut Valley. Sessions took the form of discussion following presentation of a report by a member of the seminar on results of research or of work in progress.

My service on University committees has been a heavy load since, as her alternate, I covered many of Dean Curtis' commitees, as well as my own.

An added responsibility, taken on this year, has been my service as an advisor to the commuters, now called the Non-Resident Student Association. Interviews with women commuters with the help of a work scholar have, I hope, contributed to their feeling that someone cared about their problems and special needs.

My work with Judiciary Board has had a two-fold emphasis: to interpret discipline as earned, and to help students under censure to learn from their experiences and to grow in responsible citizenship.

Counseling and referral of individual students and of student groups in their planning increased due to the absence from the campus of Dean Curtis or the great administrative demands on her time.

I had the responsibility for turning over housing files to the new Housing Officer for Women and for briefing her on the mechanics of room assignments and room change procedures to assure orderly process with the least possible disruption to the students and with concern for effective channels of communication between our two offices.

Professional Activities

I have served as President for the second year of a two year term of the Connecticut Valley Branch of the American Association of University Women. During my tenure we have attracted many young new members concerned with issues and have involved them in study groups with implementation chairmen who have been rigorous taskmasters.

The University should, in its future planning, be aware that this organization can be called upon to help with studies in the area of human resources and of continuing education.

I have served as discussion leader, panelist, or reactor at various conferences including State meetings of AAUW, the National Conference of AAUW in Denver last summer, and the forum, Women in a Changed Society, held here and sponsored by the University of Massachusetts Cooperative Extension Service.

I am a member of the American Personnel and Guidance Association and of the National Association of Women Deans and Counselors. It has been a source of continuing frustration to have had to maintain these memberships at my own expense and to have been able so rarely to attend national meetings of APGA or NAWDC for professional enrichment. Dean Curtis and I could not, in all conscience, absent ourselves from the campus at the same time. Limitations of travel budget also prevented my attendance.

Future Plans and Needs

1. We need better communication between all officers who are dealing with student life. The Dean of Students, chairing meetings as a coordinator with his Deans and Housing Officers, could do much to promote free discussions of common concerns and to plan procedures. Sharing in decision-making by personnel officers to be affected by these decisions would obviate resistance to change when a decision is made after one-sided discussion and prior commitment.

2. We need to strengthen or find a substitute for the Student-Faculty Social Committee to look at the social climate, values and attitudes in relation to University policy and Student Government. Involvement of student leaders with faculty, mental health officers, and representatives of the clergy in looking for constructive ways to effect changes in attitudes and in values would be worthwhile.

3. We need additional staff and secretarial assistance. If I am to continue to work with sororities, advise Panhellenic, meet with sorority presidents, meet with sorority housemothers and alumnae advisors, keep sorority records up to date, and in addition serve on committees, work with Women's Judiciary Board, serve as advisor to the Non-Resident Students Association, serve as liaison with the Orchard Hill Residential Experiment, and be available to meet the needs of students who come with or without appointment to the office, as well as respond without delay to the increasing number of requests for student recommendations and to the correspondence that comes to my desk, it is essential for me to have a secretary.

Our clerk and secretary are carrying too heavy a load already to be able to meet with equanimity and dispatch all the demands made upon them. The clerk to whom I have had to turn over some of the record-keeping for sororities has demands on her time which have higher priority. Our efficiency and accuracy are impaired with consequent frustrations and frenzy.

Unless I can do a good job in what I have undertaken with sororities and unless I can be given adequate secretarial help I prefer to be relieved entirely of my responsibility for sororities. I recommend that the new staff assistant, so urgently needed, be assigned this area of responsibility among other duties.

The clientele in sororities is not the number housed but the total membership, which numbers about 800 women students. The fact that they tend to set themselves apart because of their selectivity and their esprit de corps makes it the more difficult to interpret the need for conforming to University policy. It is a thankless task to work constructively with them as I believe I have, if so little importance is attached to the work required. As long as their members still comprise the majority of our student leaders we need to consider them as part of the whole student body who can be a constructive force, if channeled in the right direction.

Urgent priority should be given to the streamlining of records to reduce the man-hours required to set them up and to keep them up to date. A personnel committee, with a consultant from IBM, is needed to study the format and the mechanics of setting up and maintaining personnel records which will become a cumulative record from high school, through graduation, for eventual permanent filing in Placement.

Our availability to students to give them answers or to refer them to those who have the answers must be our first concern. Understaffing is the greatest deterrent to our effectiveness. Our preoccupation with details which should be handled by serene, efficient secretaries is a great waste of professional talent, leaving us too little time for objective planning and evaluations and, most of all, too little time for individual students, for student groups, and for advising our Heads of Residence and Housemothers.

I am gratified to have been assigned as a liaison person between our office and the Orchard Experiment. There is hope that it will be possible to have a confrontation between students, faculty, and administration, for their mutual enrichment and understanding.

Respectfully submitted,

Isabelle Gonon

Mrs. Maurice Gonon
Assistant Dean of Women

House	Phone	Campus Extension	Head of Residence	House Chairman
Dormitories:				
Arnold House	3-9230 6-6855 3-9177	545-2300, -2301	Theresa deKerpely (Mrs. Eugene) (545-2482)	Rory Broderick '64
Brooks House	6-6889 6-6835	545-2410, -2411	Emily Rugg (Mrs. A.F.Jr.) (545-2538)	Doris Sosik '64
Crabtree House	6-6881 3-9140 6-6891	545-2302, -2303	Ruth Pitt (Mrs. Lester I.) (545-2469)	Judith Cobb '64
Dwight House	3-9256 3-9149	545-2304, -2305	Winifred Field (Mrs. Richard) (545-2365)	Marion Damon '64
Hamlin House	6-6866 3-9207 3-9237	545-2306, -2307	Elsie Rich (Mrs. Mulford E.) (545-2720)	Florence Moore '65
Johnson House	3-9109 3-9103	545-2308, -2309	Elsie Johnson (Mrs. Herbert) (545-2721)	Julia Place '64
Knowlton House	6-6840 6-6801 6-6859	545-2510, -2511	Amy Judge(Mrs. Gerald A.) (545-2409)	Sandra Borg '64
Leach House	6-6848 6-6893	545-2512, -2513	Marjorie Clough (Mrs. Bradford) (545-2468)	Sally Dickson '65
Lewis House	6-6847 3-9260	545-2514,-2515	Marion Cumming (Mrs. R. Stuart) (545-2270)	Marilyn Selian '64
Mary Lyon House	3-9163 3-9173 3-9206	545-2516, -2517	Frances Pennington (Mrs. Geo. D.) (545-2722)	Ann Mullin '64
Thatcher	6-6842 3-9201	545-2518, -2519	Betsy Ogletree (Mrs.) (545-2269)	Sheilah MacLennan '64
Van Meter North	3-9276 6-6830	545-2644	Ella E. Marshall (Mrs. Elliott) (545-2021)	Winona LeBlanc '64
Van Meter South	3-9129 6-6832	545-2645	Elizabeth D. Farrell (Mrs.) (545-2478)	Nancy Stack '65
Sororities:			Housemothers:	Presidents:
Alpha Chi Omega	3-2929		Mrs. Vera Sheppard (527-4678)	Eileen Reilly '64
Chi Omega	6-6868	315 Lincoln Ave.	Kathryn Young (Mrs. Edward W.) (3-3941)	Janice Reimer '64
Iota Gamma Upsilon	6-6631			Patricia Genetti '64
Kappa Alpha Theta	3-7630	778 No. Pleasant	Taimi Toko (Mrs. Eino) (3-7502)	Jane Buckley '64
Kappa Kappa Gamma	3-9202	314 Lincoln Ave.	Naomi Alderman (Mrs. Donald) (3-5650)	Elizabeth Mercer '64
Lambda Delta Phi	6-6871	389 No. Pleasant	Mary Kirby (Mrs.) (3-3821)	Nancy Andrade '64
Pi Beta Phi	3-3470 3-2588	388 No. Pleasant	Martha Cheyne (Mrs. Hugh) (6-6669)	Beverly Brent '64
Sigma Delta Tau	3-9224	409 No. Pleasant	Lillian Ryan (Mrs. Merton)(3-2967)	Merry Arnold '64
Sigma Kappa	6-6887	19 Allen St.	Margaret Mellin (Mrs. Frederick) (3-7717)	Priscilla Bradway '64
Sigma Sigma Sigma	3-9116	813 No. Pleasant	Alice E. Drake (Mrs.) (3-7907)	Dorothy Stoklosa '65

OFFICE OF DEAN OF WOMEN: 545-2240, -2598. Dean of Women, Helen Curtis; Assistant Dean of Women, Isabelle Conon (Mrs. Maurice); Secretary, Ann Silva (Mrs. W.J.); Secretary, Constance Hastings (Mrs. Donald W.)

UNIVERSITY OF MASSACHUSETTS

Reference List of Women Student Leaders for 1963-64

Women of the Student Senate:
Marilyn "Sam" Singer '65 Chairman, Women's Affairs; Brenda Bryan '66; Carol Ann Caron '66; Jenny Crispen '67; Maureen Flanagan '66; Karen Garvin '66; Wendy Hall '65; Candy Holtzman '66; Toby Kaplan '65; Joan Labuzoski '64; Ginny Mallison '65; Mary Marti '66; Diane McNeill '66; Gail Moran '66; Michele Potvin '66; Carol Ricci '66; Paula Stephens '66; Bonnie Stokes '66.

Women's Judiciary Board:
Janice Reimer, Chief Justice; Linda Fisher '65; Kathy Meehan '65; Marion Smith '66; Margaret Walter '64.

House Chairmen:
ARNOLD - Rory Broderick '64
BROOKS - Doris Sosik '64
CRABTREE - Judith Cobb '64
DWIGHT - Marion Damon '64
HAMLIN - Florence "Chickie" Moore '65
JOHNSON - Julia Place '64
KNOWLTON - Sandra Borg '64
LEACH - Sally Dickson '65
LEWIS - Marilyn Sellan '64
MARY LYON - Ann Mullin '64
THATCHER - Sheilah MacLennan '64, Chairman of Chairman
VAN METER NORTH - Winona LeBlanc '64
VAN METER SOUTH - Nancy Stack '65

Inter-dorm Council:
Ruth Feinberg '65 President

Big-Little Sister Committee:
Judy Crooker '66; Maureen Ricketts '66, Co-Chairmen

Sorority Presidents:
ALPHA CHI OMEGA - Eileen Reilly '64
CHI OMEGA - Janice Reimer '64
IOTA GAMMA UPSILON - Patricia Genetti '64
KAPPA ALPHA THETA - Jane Buckley '64
KAPPA KAPPA GAMMA - Elizabeth Mercer '64
LAMBDA DELTA PHI - Nancy Andrade '64
PI BETA PHI - Beverly Brent '64
SIGMA DELTA TAU - Merry Arnold '64
SIGMA KAPPA - Priscilla Bradway '64
SIGMA SIGMA SIGMA - Dorothy Stoklosa '65

Panhellenic Council:
Marie Makinen '64 President

Phi Kappa Phi - National Scholastic Honorary:
Elaine R. Needham '64; Carol Hermsdorf '65; Suellen Kone '65; Roberta Bernstein '66; Janet Kay Smith '66

Mortar Board - Senior Women's Honorary:
Beverly Botelho, President; Pat Stankiewicz; Nancy Andrade; Judy Rosenthal; Judy Clark; Ellie Stang; Merry Arnold; Edith Leahy; Joyce Blum; Judith Knox; Elaine Needham; Annelies Ruthel; Linda Schecterle.

Scrolls - Sophomore Honorary:
Susie Belanger, President; Deborah Wye; Sandra Kerr; Karen Patitz; Leslie Arnold; Susan West; Anne Schwalenstocker; Elizabeth Johnson; Sandy Schmalz; Ellen Garvey; Elizabeth Veneri; Susan Scanlon; Patricia Seibert; Martha Brockway; Karen Klimas; Elaine Howe; Marion Smith; Sarah Eustace; Susan Eustace; Sue Heine; Barbara Ford; Maureen Ricketts; Margaret Heap; Linda Peterson Susan Glesmann; Sally Minich; Anita Russo; Sharon Stowell; Judy Crooker.

Alpha Lambda Delta, Members, Class of '66
Carol Woodcock, President
Rosemary Steere; Kathryn Neeld; Louise McCarthy; Roberta Bernstein; Jacquelyn Beauvais; Ann Bonneau; Joan Bracker; Nancy Elwell; Susan Klein; Flora Mueller; Vera Mysyshyn; Marilou Prentice; Natalie Rhodes; Stephanie Rowland; Janet Kay Smith; Gretchen Snook; Sally Snow; Sharon Stowell; Alfreda Weinbrecht; Jeanne Williams.

Women Members of Revelers:
Patricia Bourbonnais; Linda Swenson; Margaret Walter; Beverly Brent; Frances Dee Burlin; Nancy Downing; Harriet Feingold; Sally Kangas; Donna Logue; Janet Goldman; Ann Williams; Linda Worsdell; Barbara Zaleski; Judith Zenis.

Women's Athletic Association:
Martha Graves, President

Gamma Sigma Sigma
Jean Sargent '64 President

Student Union Executive Committee
(Women members SUG Board)
Merry Arnold '64 Mortar Board
Mary Ann Brady '66
Sheilah McRevy '65 Program

ANNUAL REPORT

COORDINATOR

STUDENT ACTIVITIES

1965

UNIVERSITY OF MASSACHUSETTS

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STUDENT ACTIVITIES

The newly-appointed Coordinator of Student Activities assumed his responsibility August 30, 1964; his initial task was that of staying out of the way of principal staff members who were involved in the whirlwind of activities associated with the beginning of the academic year. The Coordinator's initial impression that the staff is a dedicated one has not changed during the course of the year.

The out-of-class activities program must of necessity complement the academic community of which it is a part; for this reason it is imperative that much attention be given to the further development and expansion of the Program Office. In the fall a loose federation of offices was referred to as "Student Activities". The principal officers were the Director of University Program, the Director of the Student Union Program, the Business Manager of Recognized Student Organizations. In the evolution of the office, the senior staff position, i.e. Director of University Program, was created but assigned no staff nor budget. In February, 1965, Mr. Harold Watts was appointed Assistant Coordinator of Student Activities, vacated his position as Director, University Program, and Miss Mary Alden accepted temporarily the responsibility for the position as well as serving as Director, Student Union Program. This assignment is serving as an interim step to the ultimate formation of one office of Student Activities with the Director of University Program serving as the principal Student Activities head and all other staff personnel reporting to him. At present, candidates who can qualify for this position are being interviewed. In order to qualify, the applicants must have had student personnel experience and graduate work.

The program offices have continued to serve increasing numbers of students and student organizations with program planning, execution, evaluation, and office services. This year the programs grew in depth, strength, and budgets. The Student Union launched what is hoped to be the beginning of a Four College Activities Program, enlarged the Art Exhibit Program, and helped strengthen traditional programs, i.e. Winter Carnival, H.E.R. Weekend.

The RSO Office continues to expand in its service and advisory capacities. Student, staff and advisors find within its span of desks the resource material for programming and financing the successful project, as well as the statistics necessary for future expansion of student activity.

Financial transactions during the 1964-65 academic year have increased approximately nine percent (9%). A total of 108 contracts were channeled through the files, ranging from the $10,000 Winter Carnival package to the week-end rock and roll combo. The point of emphasis this year was to instruct the student in the procedural, accounting and analytical aspects of business enterprise. From the requisition to the invoice, the program budget to the final report, the Program contract to the drawn check, the student was offered and he accepted the opportunity to inquire, decide, sign and execute his organization's financial transactions. Most recognized the educative value inherent to the methodology involved and communicated a finer appreciation of "high finance".

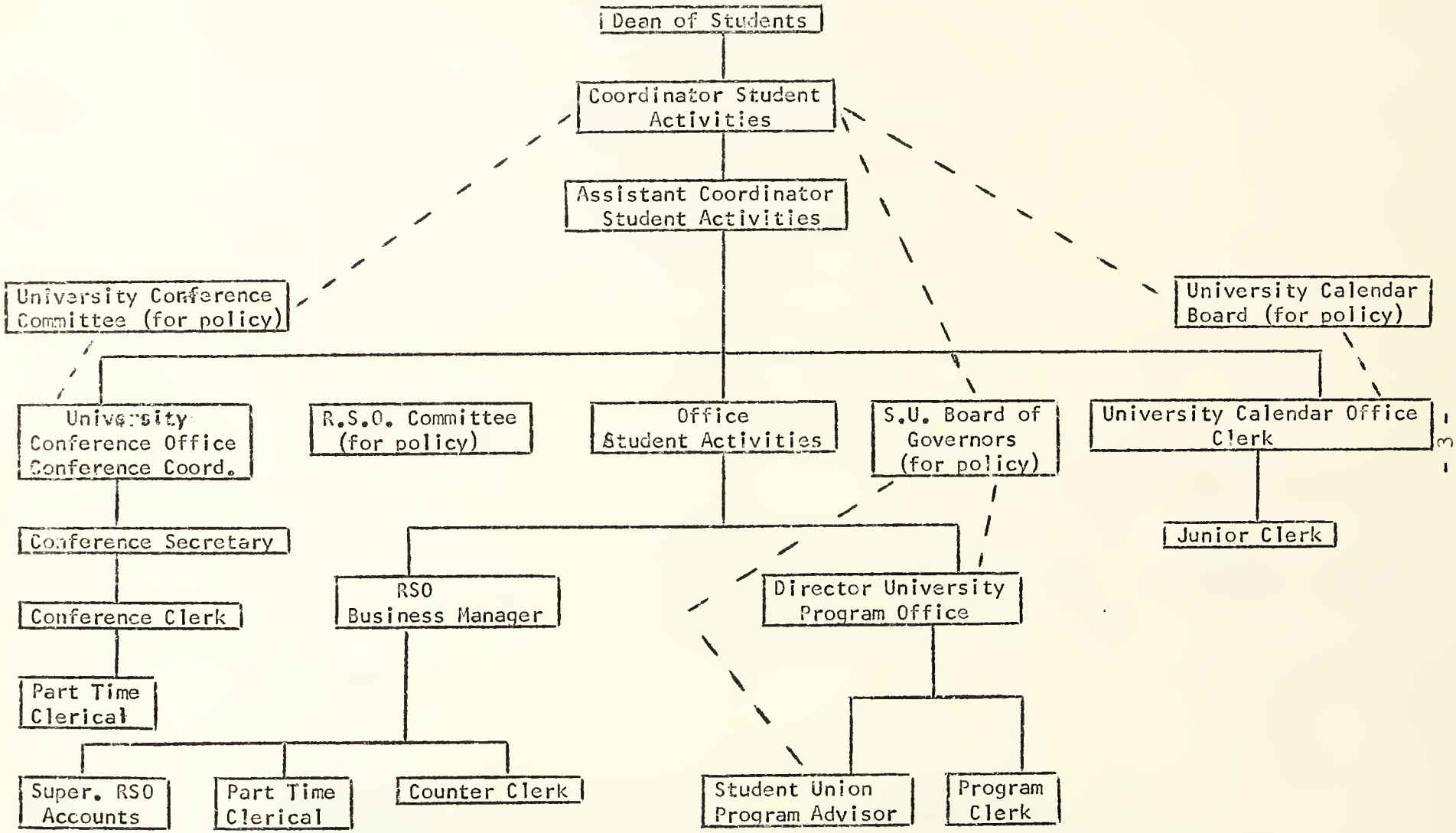
The organizational problems faced by each Recognized Student Organization continues to require at least one-third of the available time "on duty". With the single increase in office staff, the Business Manager was able to devote the necessary time to this essential advisory area. Seventeen new groups were formed on campus and many more sought guidance both in proposed constitutional amendments and interpretations of existing charters and by-laws. The lessons in democracy learned thereby will permeate the later group involvement of our students.

Concurrent to Student Activities is the opportunity to extend general advise and counsel to all who seek it.

Because budgeting and financing are one of its greatest responsibilities, communication between the Student Senate and the RSO Office is both constant and detailed, thereby insuring involvement, exchange of information, and mutual confidence.

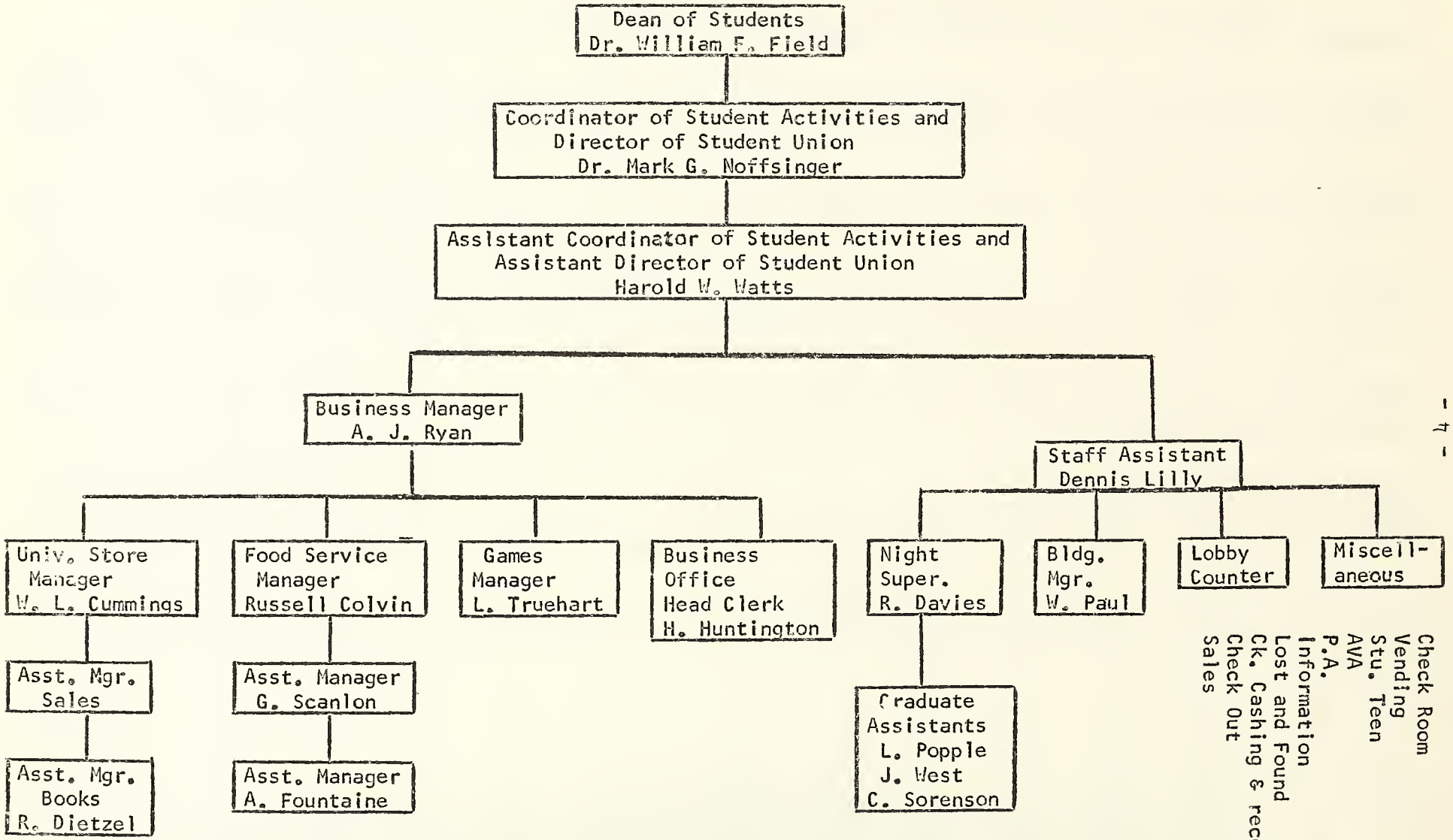
As of September, a new program assistant will be added to the staff. This position is created because of the added demands made upon the present program staff. Of necessity, the present staff has had to select areas in which to work; by default other program areas receive little or no attention. Further, little time has been available for creative new programs to fit the needs of the student community and the community of scholars at large. This creative expansion and its ultimate implementation is the most significant goal toward which the staff of the Activities Office can work. Of course, the students must be counseled to accept the responsibilities that accompany privileges.

STUDENT ACTIVITIES



JUNE 1965

STUDENT UNION



FACILITIES USAGE 1964 - 1965

	total	JULY 1964	AUG. 1964	SEPT. 1964	OCT. 1964	NOV. 1964	DEC. 1964	JAN. 1965	FEB. 1965	MARCH 1965	APRIL 1965	MAY 1965	JUNE 1965	TOTALS
UNION PROG. AND STAFF MEETINGS	# of	--	--	17	38	15	22	12	28	28	19	22	1	202
	att.	--	--	375	927	336	467	193	515	452	330	343	15	3,953
PROGRAM ACTIVITIES	# of	12	9	13	9	11	7	6	9	12	7	8	7	110
	att.	2,450	1,780	7,916	4,304	3,845	2,756	3,242	3,767	4,703	3,326	3,208	2,272	43,569
STUDENT MEETINGS NON-UNION	# of	4	--	110	247	211	165	90	233	355	218	223	8	1,864
	att.	75	--	3,357	7,540	5,567	5,239	2,844	7,024	8,931	5,008	9,074	174	54,833
STUDENT ACTIVITIES NON-UNION	# of	5	1	33	45	27	17	4	23	20	14	11	2	202
	att.	75	250	8,691	9,067	6,865	3,914	1,950	7,144	4,405	4,340	1,886	1,050	49,637
CONFERENCES	# of	3	4	2	16	13	3	7	3	14	15	14	8	102
# Of	mgs.	61	215	2	63	18	8	19	14	38	59	34	38	577
	att.	1,837	2,675	90	1,536	1,370	230	600	90	1,545	1,355	1,278	1,301	13,907
OFFICIAL UNIV. MTGS. AND FUNCTIONS	# of	46	19	42	69	47	41	37	71	51	21	62	26	532
	att.	9,063	5,785	13,504	5,580	2,396	4,185	1,036	8,302	1,426	590	5,129	8,465	66,361
LOBBY USE: DISPLAYS	# of	11	4	13	34	25	29	11	33	70	58	26	9	323
ACTIVITIES	# of	14	8	24	41	29	35	3	35	48	42	32	10	321
TICKET SALES	# of days	--	--	18	23	40	28	9	36	41	37	35	10	277

BUILDING TRAFFIC - REVENUE AND SERVICE

	CUSTOMER COUNT - 1964-1965				CHECK HANDLING	
MONTH	FOODS "HATCH"	UNIVERSITY STORE	GAMES	LOBBY COUNTER	NO.	AMOUNT
JULY	58,633	8,967	7,290	14,573	2,207	$ 50,652.91
AUGUST	14,741	14,741	9,942	21,884	2,807	69,273.90
SEPTEMBER	148,551	111,446	12,420	38,574	13,321	238,401.60
OCTOBER	201,840	42,090	17,869	65,937	15,181	$ 221,614.81
NOVEMBER	157,024	34,820	15,038	51,341	12,502	154,971.80
DECEMBER	121,289	33,784	10,869	37,069	9,302	233,829.80
JANUARY	117,213	28,138	12,468	38,264	7,617	104,234.60
FEBRUARY	166,548	67,686	17,172	53,633	18,088	275,556.73
MARCH	189,053	45,546	18,535	65,433	14,886	196,497.31
APRIL	135,517	36,529	12,359	41,569	9,475	114,840.80
MAY	162,115	36,331	12,938	47,627	11,393	134,887.27
JUNE	68,670	12,650	8,050	13,090	2650	77,804.22
TOTALS	1,603,151	472,266	154,950	485,289	119,429	$1,872,565.75

STUDENT UNION BOARD OF GOVERNORS

The Student Union Board of Governors was first initiated in the fall of 1956, with the approval of the President of the University and the assistance of the Student Senate. This initial Board established most of the present policies, under which the Student Union operates. In addition, a constitution was adopted and is still in existence. Some minor changes have taken place, mostly in the area of the selection of student representation. In keeping with the policy of the University, this Board is a recommending agency to the Student Union Administration and the Dean of Students. However, during the nine years of its existence, no policy of this Board has been voided.

The Union Board has proven to be an excellent training ground for many students. It handles many details of Union operation, but does not have any authority over the hiring and firing of personnel or their salary scales; this is a University obligation.

To guide the Board, there exists a constitution, set of by-laws, and Student Union regulations. The Board is chaired by a student elected from the Board by the total voting membership.

The 1964-65 Board consisted of:

Sheila McRevey, Chairman	Program Council
Michele Potvin	Senate
Jeffrey Davidow	Adelphia
Laura Christiansen	Program
Mary Pat Carroll	Mortar Board
John Reynolds	Class of 1965
Mary Ann Brady	Class of 1966
Linda Sweeney	Class of 1967
Alfred E. Niedeck	Faculty Representative
William Boyer	Faculty Pepresentative
Melvin Wolf	Alumni Representative
Dr. Mark G. Hoffsinger	Coordinator of Student Activities
Mrs. Mary Hudzikiewicz	Student Union Program Advisor
Mr. Harold W. Watts	Asst. Coordinator of Student Activities (ex-officio)
Mrs. Dorothy O'Connor	Recording Secretary

UNIVERSITY BOARD OF TRUSTEES
PRESIDENT UNIV. OF MASS.
DEAN OF STUDENTS
DIRECTOR---STUDENT UNION
STUDENT UNION BOARD OF GOVERNORS
CHAIRMAN
VICE CHAIRMAN---OPERATIONS
VICE CHAIRMAN---PROGRAM
SECRETARY
PROGRAM COUNCIL
REP. SU
2 Faculty MEMBERS
REP. ALUMNI ASSOC.
2 REP. SU PROGRAM COUNCIL
REP. STUDENT SENATE
DIR. UNIV. PROGRAM OFFICE (EX OFFICIO)
PROGRAM ADVISOR
ELECTED 1 SOPH. CLASS
ELECTED 1 JR. CLASS
ELECTED 1 SR. CLASS
REP. MORTAR BOARD
REP. ADELPHIA
Movie Comm. Chm.
Dance Comm. Chm.
Games & Tournaments Comm. Chm.
Personnel Comm. Chm.
Special Events Comm.
Arts & Music Comm.
Public Info. Comm.

JUNE 1965

PERSONNEL CHANGES

William D. Scott	Resigned as Coordinator of Student Activities and Director of Student Union as of July 1, 1964.
Edward A. Buck	Resigned as Business Manager, RSO as of July 21, 1964.
Dr. Mark G. Hoffsinger	Appointed Coordinator of Student Activities and Director of Student Union as of August 30, 1964.
Mr. Harold W. Watts	Became Assistant Coordinator of Student Activities and Assistant Director of Student Union, (former title Director, University Program Office) effective February 1, 1965.
Mrs. Esther A. Davis	Appointed Bookkeeper, RSO, effective August 17, 1965
Mr. Charles E. Lehman	Appointed Head Janitor effective April 4, 1965
Mr. Fred G. Sears, Jr.	Resigned as Assistant Manager, University Store, effective June 30, 1965.

STAFF TRAINING AND PROFESSIONAL PARTICIPATION

Dr. Mark G. Noffsinger	A.C.U. Regional - Bridgeport Univ. - Connecticut
	Annual A.C.U. International - San Francisco, Cal. (Panel Chairman)
Mr. Harold W. Watts	A.C.U. Concert Managers Association, N.Y.C.
Mr. Augustine J. Ryan	College Stores of New England Annual Meeting, New Britain, Conn.
Mrs. Mary Hudzikiewicz	A.C.U. Regional - Bridgeport, Conn.
Mr. Dennis E. Lilly	A.C.U. Regional - Bridgeport, Conn.
Mr. Harold C. Durgin	Adult Education Association of America, N.Y.C. Adult Education Association of Massachusetts, Boston.
	Survey of Pennsylvania State University Conference Office.
Mr. Aime C. Fountaine] Mr. Gerald Scanlon]	New England Hotel and Restaurant Meeting, Boston.
Mr. Winthrop L. Cummings] Mr. G. Richard Dietzel]	National Association College Stores Regional, Boston. National Association College Stores Annual, N.Y.C. College Stores of New England Regional, Boston. College Stores of New England Annual, New Britain.
	Mr. Dietzel attended second year seminar on College Stores at Oberlin (Ohio). He was awarded a certificate.

UNIVERSITY CALENDAR OFFICE

In September of 1957, the Student Union assumed the responsibility for the University Schedule Office, later changed to Calendar so as not to be confused with the academic scheduling. At present the Union facilities, Farley and Bowditch club houses, auditoriums, and many of the classroom facilities are scheduled by the Calendar Clerk. Policy is made by the University Calendar Board.

In the spring, the Calendar Clerk obtains all applications for events to be placed on the master calendar for the coming school year. These are submitted to the Calendar Board for approval and placement on the yearly calendar. Daily, weekly, and social activities calendars, as well as information to the Four-College Calendar, are prepared in this office. For the past three years the Calendar Clerk has acted for Student Activities as the focal point for the registration of all campus mixed social activities. Details involved in these operations are many: campus security, fire marshals, campus maintenance and custodial, information, set-up details for responsible individuals, and others.

In March of 1965, the Calendar Office was moved to the Student Activities Office area, in order to assure closer contact with University Program, Student Union Program, and student organizations.

CALENDAR BOARD

Henry B. Peirce, Jr., Chairman
Sumner M. Greenfield
John F. Townsend
John F. W. Schulze for Sidney Vaughan
Harold W. Smart
C. V. Jones
John E. Laestadius
Earl E. Lorden
Georgia Reid
Helen Curtis or Isabelle Gonon
Hills H. Skillings
Harold W. Watts
Dennis Bushe
Margaret Vanderburgh
Kathleen Manning

CONFERENCES

The number of conferences held in the fiscal year exceeded by fifteen any previous schedule; however, the number of conferees involved was not as great as some years. More student conferences have been scheduled through the conference office than previously, and it has been a pleasure to work with these groups.

An attempt to facilitate parking for conferees has been made with the innovation of a parking permit given out at the time of registration.

The conference office was moved to the first floor of Draper Hall, and a second full time clerk was appointed.

With the advent of the Labor Center on campus, plans are being made to hold a conference of five day duration, every week from mid-June until September 1st of 1966. This, along with conferences currently scheduled, will make an extremely productive year.

UNIVERSITY CONFERENCE STATISTICS

July 1, 1964 - June 30, 1965

CLASSIFICATION	NO. OF PERSONS	NO. OF CONFERENCES
Business & Public Service	9,975	41
Agriculture	2,600	27
Communications	350	2
Education	2,100	15
Engineering	235	6
Labor & Industrial Relations	575	6
Home Economics	500	5
Veterinary	150	2
Youth Groups	1,093	5
Political	357	4
Athletic	650	5
Meetings	1,600	12
Totals	20,190	130

THE STUDENT UNION OPERATION

The day-to-day operations of the Student Union and the financial record-keeping have increased during the past year because of the added student enrollment and the growth of the University. The stress and strain of the school year were absorbed by the staff and facility. At certain times, the sheer number of events and participants plus the normal daily use, caused problems which were met only by the cooperation of every one on the Student Union staff. The role of the Student Union in the life of the University is well understood and accepted by all. Every effort is made to fulfill this role.

Several offices were moved in order to improve operating efficiency. New items of equipment were added. A midnight janitorial shift became necessary. Line responsibility was set up and better controls have resulted.

The Business Office with its responsibility for financial and accounting as well as purchasing and building operation has been pressed to keep pace with Student Union activity. As the year is closed, things are falling into place and there is the realization that rules and regulations have a reason behind them. The new office machine for recording all cash transactions has proved to be a success. Contract bidding has saved money in purchasing. The refurbishing of four lounges, Colonial, Cape Cod, Governors, and Reading Room, have given the whole building a new look.

Student Union General Fund
Statement of Income & Expenditures
July 1, 1964 - June 30, 1965

Income

Student Fees Collected	199,159.00	
Less: Refunds	5,569.60	193,589.40
Student Senate Appropriation		12,000.00
Transfer from S.U. Food Service		60,000.00
Transfer from University Store		46,700.00
Conference Services		182,786.12
Games Area		28,588.45
Rental & Custodial Fees		7,590.81
Office Services		5,511.81
Lobby Counter Sales		46,118.65
Other Activities		12,644.16
Total Income for the Year		$595,529.40

Expenditures

Administrative	92,034.88
Maintenance	62,726.43
Games	28,764.19
Student Activities	19,468.06
Conference Services	174,758.65
Office Service Expense	7,444.18
Lobby Counter	45,712.24
Building Rental	100,000.00
Other Activities	710.29
Renovations	14,933.52
Total Expenditures for the Year	$546,552.44
Excess Income over Expenditures	$ 48,976.96

Student Union General Fund
Balance Sheet
June 30, 1965

Assets

Cash on Hand		10,050.00
Cash in Bank		71,680.64
Contributions to S. U. Reserve		39,664.63
Accounts Receivable		37,168.98
Equipment	61,917.50	
Less Depreciation Reserve	9,965.52	51,951.98
Total Assets		$210,516.23

Liabilities & Net Worth

Accounts Payable		32,001.18
Summer Session Activities Fund		4,707.86
Free Capital	134,142.56	
S. U. Reserve Fund	39,664.63	
Capital		173,807.19
Total Liabilities & Net Worth		$210,516.23

Student Union Reserve Fund
Balance Sheet

Cash on Deposit	$148,654.08	Reserve for Equipment Replacements:	
		Student Union General Fund	$ 39,664.63
		Student Union Food Service	76,593.70
		University Store	24,034.88
		Interest	8,360.87
	$148,654.08		$148,654.08

STUDENT UNION FOOD SERVICE

The basic Food Service provided by the Student Union is, of course, the snack bar-cafeteria combination called the "Hatchet and Pipe" and more popularly known as the "Hatch". The other services are catering, walk-in snack bar, and take-out. Each of these, operating the different areas, contributed effectively in meeting the daily needs of a seemingly omnivorous campus population.

The closing hours were extended on weekends to accomodate students. The new service of free coffee at midnight in dormitories during final examinations (in conjunction with Dining Commons) was well received in January and again in May. Some 14,000 cups were served. While there was more catering to groups, the size of these groups was somewhat smaller than in past years.

The problem of adequate space for food storage and preparation and for dining becomes more acute with each passing year. Plans for next fall provide for more service but all concerned realize that this will be speedily offset by the additions of student, staff, and visitors.

This has been a year of changing patterns in service. The new student dining commons and the dining commons snack bar did absorb some of the overflow in the "Hatch", but the increase in campus population added even more pressure. Since feeding is not a primary function of the Student Union, but is an auxiliary service, the efforts to expand are being made with a minimum dislocation of other services.

Student Union - Food Service Fund
Statement of Income & Expenses
July 1, 1964 to June 30, 1965

SALES & INCOME		
Counter Sales	$570,873.92	
Catering Sales	78,906.32	
Total Sales	649,780.24	
Miscellaneous Operating Income	2,442.51	
Vending Commissions	894.43	
Total Income		$653,117.18
COST OF GOODS SOLD		
Inventory 7/1/64	$ 4,290.20	
Food Purchases	284,674.23	
	288,964.43	
Less Cash Discounts	2,008.92	
	286,955.51	
Inventory 6/30/65	4,150.50	
Cost of Goods Sold		$282,805.01
Gross Profit on Sales and Income		$370,312.17
EXPENSES		
Salaries--Permanent Payroll	238,826.67	
Salaries--Student Payroll	12,998.69	
Charge for Office Services	4,605.06	
Supplies	24,314.02	
Telephone	440.93	
Repairs and Maintenance	8,120.09	
Laundry	6,635.04	
China and Silver	2,408.57	
Heat and Utilities	484.84	
Depreciation Expenses	3,526.32	
Employees Group Insurance	2,497.01	
Travel and Education	-0-	
Advertising	-0-	
Uniforms	48.99	
Total Expenses		$304,906.23
Excess of Income over Expenses		$ 65,405.94

Student Union - Food Service Fund

Balance Sheet - June 30, 1965

ASSETS			LIABILITIES & NET WORTH		
Cash in Bank		90,871.91	Accounts Payable		19,890.50
Cash on Hand		900.00	Mass. Old Age Tax Payable		844.75
Contributions to S.U. Reserve		76,593.70	Accrued Payroll		1,205.60
Accounts Receivable		8,805.62	Net Worth	106,413.21	
Inventory 6/30/65		4,150.50	S.U. Reserve Fund	76,593.70	
Equipment	$37,459.40		Total Net Worth		183,006.91
Less Depreciation	13,833.37	23,626.03			
		$204,947.76			$204,947.76

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Net Worth Account

Balance, July 1, 1964		177,600.97
Transfer to Student Union General Fund		60,000.00
		117,600.97
Excess of Income over Expense for the Year		65,405.94
		$183,006.91

STATISTICS - STUDENT UNION CATERING SERVICE

1964-1965

Elaine Nenartonis

MONTH	#CATERED MEALS	#SERVED	COFFEES, TEAS, AND LUNCHEONS	#SERVED	TOTAL SERVED	TOTAL FUNCTIONS SERVED	WALKIN SERVICE SALES
JULY 1964	37	1080	1	8	1088	38	-0-
AUGUST 1964	31	1055	14	2170	5225	45	-0-
SEPT. 1964	29	553	15	3522	4075	44	$ 1,491.69
OCT. 1964	86	3704	44	2964	6668	130	2,076.06
NOV. 1964	60	2151	31	1090	3241	91	1,940.13
DEC. 1964	47	1150	17	807	1957	64	1,573.64
JAN. 1965	54	1215	14	380	1595	68	1,444.71
FEB. 1965	89	2421	34	4287	6708	123	2,479.09
MARCH 1965	94	3885	47	2610	6495	141	3,129.32
APRIL 1965	81	3157	32	3964	7121	113	2,156.24
MAY 1965	99	4125	43	2625	6750	142	2,387.86
JUNE 1965(Est.)	53	3950	20	800	4750	73	-0-
TOTALS	760	28,446	312	25,227	55,673	1072	$18,678.72

STUDENT UNION - UNIVERSITY STORE

The quickening of the intellectual pace of the University with the consequent increase in disciplines and course offerings has spurred the University Store into greater diversity in books and academic supplies. The role of the University Store in the growth of the University is based upon close cooperation with departments, faculty, and administration.

There are several mile-posts for fiscal 1964-65; the volume of book sales, the seventh Annual Book Fair, the first Annual Paperback Book display.

Assistant Manager Fred G. Sears (U. Mass. '23) retired after twenty years service. Mr. G. Richard Dietzel attended the second year seminar on Bookstore Management at Oberlin College and was awarded a certificate. The initial steps were taken in organizing a bookstore for UMass/Boston.

The limiting factor on service is the space alloted for the University Store. With more students and more courses, more books and supplies must be on hand and in larger quantities. By using the Commonwealth Room during semester openings, temporary relief is obtained, but the present store is overtaxed to provide the normal services.

Student Union - University Store Fund

Statement of Income and Expenses
July 1, 1964 - June 30, 1965

	Supplies	Books	Totals
Sales:	$403,000.00	$705,000.00	1,108,000.00
Cost of Goods Sold:			
Inventory 7/1/64	83,109.06	118,060.17	201,169.23
Purchases	282,775.54	609,772.01	892,547.55
	365,884.60	727,832.18	1,093,716.78
Less Inventory 6/30/65	90,484.20	132,500.00	222,984.20
Cost of Goods Sold	275,400.40	595,332.18	870,732.58
Gross Profit on Sales:	$127,599.60	$109,667.82	$237,267.42
Other Income:			
Post Office			4,000.00
Lobby Counter Sales			58,026.51
Miscellaneous Income			25,429.91
Gross Profit from Operations			$324,723.84
Less Expenses:			
Permanent Payroll		94,376.10	
Student Payroll		8,525.30	
Student Union Office Service Charges		4,664.58	
Supplies Expense		2,740.44	
Insurance		2,525.00	
Employees' Group Insurance		927.00	
Depreciation Expenses		2,447.64	
Repairs, Maintenance and Additions		1,190.47	
Telephone and Telegraph		525.26	
Postage and General Transportation		908.32	
Advertising		167.50	
Laundry		40.00	
Miscellaneous Expenses		16,517.78	
Education and Travel		623.20	
Lobby Counter Expenses		55,445.40	
Cash Over and Shortage		175.00	
Total Expenses			191,798.99
Excess of Income over Expenses			$132,924.85

Student Union - University Store Fund

Balance Sheet - June 30, 1965

Cash on Hand	5,500.00	Sales Tax Payable	650.00
Cash in Bank	163,694.01	Accounts Payable	15,575.00
Contribution to S. U. Reserve Fund	24,034.88	Lab Charge Reserve	14,291.29
Accounts Receivable	35,550.25	Accrued Payroll	1,898.25
Equipment 24,160.92		Net Worth 410,231.27	
Less Depr. 10,943.57	13,217.35	S. U. Reserve Fund 24,034.88	
Inventory	224,684.20	Total Net Worth	434,266.15
	$466,680.69		$466,680.69

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Net Worth Account

Balance, July 1, 1964	$348,041.30
Less Transfer to Student Union General Fund	46,700.00
	301,341.30
Excess of Income over Expenses for the Year	132,924.85
Net Worth as of June 30, 1965	$434,266.15

ACCOUNTING AND FINANCIAL PROCEDURES

During the year, the Student Union's accounting procedures were revised to more adequately cope with the greatly increased volume of business in all areas of the Union's operations. These revisions were made within the framework of financial and accounting procedures for Trust Funds as established by the University Board of Trustees and were also approved by the State Auditors.

Changes in the procedures were due to the acquisition of a Cashier's Register machine made specially to fit the needs of the Union. It records all cash income transactions, provides receipts, furnishes basic information for bookkeeping purposes, and has expedited the preparation of the daily deposits.

The Accounts Receivable records have been partially consolidated; the final step on this measure will become effective at the start of the new fiscal year.

Physical changes in the Cashiers office were made to provide greater security for the personnel and money and to expedite the cashing of checks and receiving of cash from all sources.

Purchasing procedures instituted under the control of the Business Manager have resulted in a significant increase in contract bidding that now covers many of the items purchased in all departments. In the processing of these purchase contracts, the assistance of the University Procurement office has been invaluable. Substantial reductions in operating costs have been effected, leaving the Union in a healthy financial position at the end of the year.

To finance new furniture and equipment for four lounges, $19,000.00 was withdrawn from the Student Union Reserve Fund. This was the first time in eight years that money from this fund has been used. Current income financed renovations that cost $14,000.00, in addition to covering budgeted expenditures for a new safe, cashiers register, desks, and office machinery.

The accounting office handled an excess of two and three-quarters million dollars in receipts. Checks cashed for students accounted for one and one-quarter million dollars. This volume of business necessitates an increase in personnel in the accounting office. At present this staff consists of a supervisory Head Clerk, two bookkeepers, two assistant bookkeepers, one cashier, (all full time), one clerk on a nine months appointment, and a part time clerk.

STUDENT UNION - BUILDING OPERATION

In keeping with the realignment of responsibilities, the Staff Assistant in building operation now has clear and direct authority under the Business Manager for building supervision, maintainance, lobby counter, coat checking. There was little change in building operation methods during the year. The step-up in use of the Student Union during day and evening hours forced the addition of an all-night janitorial crew. This has proved its value and will be expanded from two to four men.

The retail department of the lobby counter is now operated by the University Store. The other activities including information, lost and found, check cashing, and ticket selling are services rendered to the campus community. These have involved more personnel this year but are vital parts of the Student Union's campus image.

The Student Union is still the first place visited on campus by conferees, new students and their families, distinguished guests, and student teams from other universities, thus it is important that the true spirit and tempo of the University be projected. The Student Union strives to do this.

STUDENT UNION PERSONNEL

June 1, 1965

	GENERAL	FOOD SERVICE	UNIVERSITY STORE	TOTAL
Students	19	31	40	90
Regular	40	36	16	92
Part Time	5	46	8	59
TOTAL	64	113	64	241

RECREATION DEPARTMENT

The Recreation Department facilities consist of eight candle pin bowling lanes, eight billiard tables, five table tennis, a lounge for TV, card tables, rental lockers, and a limited vending service. The Lodge area also serves as a campus home for many commuter students. Here the students can relax in leisure-time activity, as well as participate in many programmed events planned by the Games and Tournament Committee in cooperation with the Games Manager and his staff.

Special events have been initiated in the bowling lanes, and future plans include an increase in this type of program.

Budgets

1965-1966

STUDENT UNION GENERAL FUND BUDGET

1965 - 1966

The Student Union Budget for fiscal year July 1, 1965 to June 30, 1966 is based on a total enrollment of 11,525 students. The income is derived from student fees, transfer of excess revenue from Food Service and University Store, Student Senate appropriation for R.S.O. and net revenue from Games, Conferences, Office Services and building use. The expenses are for administration, building maintainence, student activities, rental (to State Treasurer).

There are four separate funds in this report:

1.	General Fund	ZII
2.	Food Service	ZI2
3.	University Store	ZI3
4.	Recognized Student Organizations	ZI4

The capital accounts of Funds ZII, ZI2, ZI3, are divided into:

1. Working Capital

2. Student Union Reserve Fund

The Student Union Reserve Fund is built up by setting aside each year an amount equal to the yearly depreciation on fixtures and equipment. This includes furnishings that came with the building. This reserve fund is used specifically to purchase replacerent equipment. Thus, the requests for fixtures and equipment are for new and additional items, and therefore, are to be expended from working capital. All new fixtures and equipment are purchased out of working capital.

The March 31, 1965 working capital balances and the 1965 Budget requests are:

	Balance March 31, 1965	Budget Request Fixtures and Equipment
ZII (General Fund)	$108,070.51	$15,819.00
ZI2 (Food Service)	54,174.97	21,896.00
ZI3 (University Store	386,687.61	15,000.00

The Student Union Reserve Fund (Replacement Fund) balances on March 31, 1965 were:

ZII	$16,759.72
ZI2	63,426.00
ZI3	19,616.82

Noteworthy are the capital fund expenditures (Food Service) of $13,000.00 for supplementary feeding facilities in the Student Union and (University Store) of $15,000.00 for a store at University of Massachusetts-Boston.

The working capital of the University Store will be used to stock the store at University of Massachusetts-Boston and to defray expenses until it is able to operate on its income. Repayment for fixtures and advances will be made hopefully in time to use these funds for the new store on the Amherst campus in 1968.

The Food Service at University of Massachusetts-Boston is in the final planning stage. It is expected that arrangements will be completed by July 1, 1965.

GENERAL FUND INCOME AND EXPENSE

Income			
Student Fees	$214,250.00		
Student Senate Appropriation	12,000.00		
Transfer from Food Service	60,000.00		
Transfer from University Store	55,000.00		
Games Area---Net	301.68		
Conferences---Net	1,980.62		
Miscellaneous	5,420.00		
Office Services---Net	270.00		
Rental and Custodial Fees	8,500.00		
		$357,722.30	
Expenses			
Administration	$171,946.30		
Maintenance	71,344.78		
Student Activities	6,054.00		
Rental to State Treasurer	100,000.00		
Miscellaneous	250.00		
		349,595.08	
To Capital Account			$8,127.22

May 20, 1965

GAMES AREA BUDGET

1965-1966

Income				
Bowling, Billiards, Table Tennis			30,000.00	
Locker Rentals (semester)			300.00	
TOTAL				30,300.00
Expenses				
Payroll:	Regular	18,486.80		
	Group Insurance	461.52		
	Student	3,000.00		
			21,948.32	
Supplies		2,310.00	2,310.00	
Repairs				
Bowling Lanes		1,000.00		
Billiard Tables		600.00		
Table Tennis Tops		300.00		
			1,900.00	
Rental				
Pinsetters		3,840.00	3.840.00	
TOTAL				29,998.32
Excess Revenue Over Expenses				$301.68

Equipment (Included in Student Union Equipment Budget)

Ball Cleaner	100.00
Storage Cabinet	70.00

May 20, 1965

CONFERENCE BUDGET

1965--1966

Income				125,000.00
Expenses				
Payroll:	Regular	16,105.10		
	Group Insurance	219.28		
	Part-time	4,500.00		
	Student	500.00		
	Professional Increment	185.00		
			21,509.38	
Supplies				
Office		1,200.00		
Office Services		1,200.00		
Education and Travel		700.00		
Indirect		180.00		
Conference		480.00		
Lodging		5,000.00		
Telephone		250.00		
			9,010.00	
Direct Expenses				
Meals		58,000.00		
Lodging and Rentals		27,000.00		
Linen		6,500.00		
Rental Student Union		1,000.00		
			92,500.00	
				123,019.38
Excess Income over Expenses				$1,980.62

May 20, 1965

INCOME GENERAL FUND MISCELLANEOUS BUDGET 1965-1966

Pay Telephones	3,000.00
Auto Matron	220.00
Check Service Charges	600.00
Other	600.00
Ticket Booth	1,000.00
	$5,420.00

May 20, 1965

Office Services

Expenses	1964-65 As of 4/8/65	1964-65 Est'd Totals	1966-65 Proposed Budget
Mimeo Paper Ink Pads Stencils	366.35	550.00	600.00
Ditto Paper Fluid Hand Cleaner Stencils	59.75	80.00	100.00
Embosograph Cardboard Letters	146.50	160.00	200.00
Line-O-Scribe Ink Poster Board Rags Fluid Hand Cleaner	580.46	600.00	500.00
*New Type	00	00	00
Triangle Board Paper Jet Spray	233.05	250.00	250.00
Wages	3796.66	4414.29	4850.00
Full Time	2914.29	3414.29	3500.00
*Part Time	882.37	1000.00	1200.00
Delivery	00	00	150.00
Repair Work	27.75	30.00	30.00
Totals	5210.52	6084.29	6530.00
Income All Services	5131.73	6000.00	6800.00
	-78.79	-84.29	+270.00

ADMINISTRATIVE DEPARTMENT BUDGET

1965--1966

Payroll		157,544.55	
Supplies and Expenses			
Office	1,200.00		
Stationery and Printing	600.00		
Telephone	850.00		
Education and Travel	1,200.00		
Entertainment	200.00		
Miscellaneous	4,000.00		
Repairs Office Machines	150.00		
		8,200.00	
Depreciation		6,201.75	
			$171,946.30

PAYROLL DISTRIBUTION

Student Union Building			
Administrative Office		77,801.19	
Supervision		20,225.18	
Student Activities			
Administrative and Office		31,897.21	
S. U. Program		12,720.99	
Recognized Student Organizations		14,899.98	
			$157,544.55

May 20, 1965

MAINTENANCE DEPARTMENT BUDGET

1965--1966

Expense			
Payroll			
Regular	59,529.70		
Group Insurance	1,315.08		
Student	1,500.00		
		62,344.78	
Supplies	5,200.00		
Repairs and Parts	3,000.00		
Labor from Outside	600.00		
Uniforms	200.00		
		9,000.00	
TOTAL			71,344.78

May 20, 1965

STUDENT ACTIVITIES BUDGET

Program

1965--1966

Income		
Arts and Music	500.00	
Conference Regional A.C.U.	1,790.00	
Dance	2,450.00	
Games and tournament	100.00	
Movies	8,000.00	
		12,840.00
Expenses		
Arts and Music	7,025.00	
Conference	2,175.00	
Craft Shop	500.00	
Dance	1,900.00	
Games and Tournament	1,820.00	
Movies	3,960.00	
Office	850.00	
Publicity	1,050.00	
Speical Events	975.00	
		20,255.00
Excess Expenses Over Income		$7,415.00

STUDENT ACTIVITIES

Recognized Student Organizations and Program Budget

R. S. O. Excess Income		1,361.00	
Program Budget	7,415.00		
To Be Budgeted			6,054.00

STUDENT ACTIVITIES BUDGET

Recognized Student Organizations
1965--1966

Income			
Interest from Savings Bank		2,500.00	
Reimbursement Part-time Employees		1,200.00	
Reimbursement Postage		2,000.00	
Locked File Drawer Rentals		40.00	
			5,740.00
Expenses			
Office	789.00		
Office Machine Repair	150.00		
Locked File Rental	40.00		
Printing	500.00		
Postage	2,100.00		
Education and Travel	100.00		
Telephone	450.00		
Periodicals and Books	50.00		
Other	200.00		
		4,379.00	4,379.00
Excess of Income Over Expenses			$1,361.00

Note 1. Income
Senate appropriation of $12,000 listed as General Fund Income

2. Payroll of $19,735.30 listed as General Fund Payroll

May 20, 1965

Proposed Budget - 1965-66
316 Program Accounts

	Expenses	1963-64 Proposed Budget	1963-64 Est'd Totals	1964-65 Proposed Budget	1964-65 As of 4/8/65	1964-65 Est'd Totals	1965-66 Proposed Budget
316	Office	625.00	434.00	755.00	650.18	683.00	850.00
316 A	Arts & Music	3225.00	4475.33	4455.00	5356.77	6707.87	7025.00
316 B	Conference	00	00	00	00	00	2175.00
316 C	Crafts Shop	2000.00	375.00	2200.00	00	00	500.00
316 D	Dance	1600.00	1275.00	1725.00	1489.00	1629.91	1900.00
316 G	Games & Tourn.	900.00	920.00	1800.00	1313.25	1526.63	1820.00
316 M	Movies	2950.00	3236.63	3750.00	2696.79	3448.66	3960.00
316 P	Publicity	1675.00	1159.00	1375.00	707.07	822.00	1050.00
316 S	Special Events	1125.00	444.65	840.00	614.00	693.34	975.00
	Totals	14100.00	12419.61	16900.00	12327.00	15511.41	20255.00
	Income						
316	Office	00	00	00	00	00	00
316 A	Arts & Music	100.00	2648.00	3000.00	1001.00	1001.00	500.00
316 B	Conference	00	00	00	00	00	1790.00
316 C	Crafts Shop	100.00	10.00	100.00	00	00	00
316 D	Dance	1500.00	2509.60	2650.00	2199.20	2399.20	2450.00
316 G	Games & Tourn.	50.00	50.00	50.00	00	100.00	100.00
316 M	Movies	6000.00	9008.00	10900.00	6193.94	7243.94	8000.00
316 P	Publicity	00	11.20	00	113.00	113.00	00
316 S	Special Events	300.00	25.50	200.00	00	00	00
	Totals	8050.00	14262.30	16900.00	9507.14	10857.14	12840.00
	Student Union General Fund	6050.00	6050.00	00	00	00	7415.00
	Grand Total	14100.00	20312.30	16900.00	9507.14	10857.14	20255.00
	Difference	00	+7892.69	00	-3319.86	-4654.27	00

EQUIPMENT AND IMPROVEMENTS
(from Capital Account)

1965--1966

IMPROVEMENTS

Folding partition in Commonwealth Room		3,100.00
Office partitions for Collegian, Index, Student Activities		1,000.00
Renovation--North-South Corridor, Main floor into Art Gallery		3,000.00
Fluorescent Light Fixtures		720.00
2---Barnstable Room		
2---Lobby Office		
1---Check Room		
5---Ground Floor Lobby		
8---Billiard Room		
Ticket Office---Machine	$800.00	
Renovation	400.00	1,200.00
Emergency Light		720.00

EQUIPMENT

Directory Board (3 doors==Lobby)	400.00
Tables--Folding, 6' x 30" (Plastic Tops) (10)	400.00
Tables--Commonwealth Room, 30 at $20.00	600.00
Counter--Lobby Office	200.00
Trash Receptacles (6)	200.00
Drapes--Lobby	500.00
Sand Urns (6)	300.00
Clocks--Electric (3)	75.00
Games Area---Ball Cleaner	100.00
Cabinet	70.00
Cue Rack	30.00
Triangle Sign Boards---Lobby (2)	350.00

OFFICE EQUIPMENT

Typewriters---Lobby Office (1), Administrative Office (2)	900.00
Adding Machines---Lobby Office (1), Administrative Office (2)	1,000.00
Desks---Lobby Office (1), Administrative Office (2)	400.00
Desk Chairs---Lobby Office (2), Administrative Office (2)	180.00
Files---Lobby Office (2), Administrative Office (2)	200.00
Pedestals (Desk Drawers) Lobby (2)	90.00
Typewriter Stands (3)	84.00
	$15,819.00

May 20, 1965

STUDENT UNION---FOOD SERVICE
PROPOSED BUDGET
July 1, 1965-June 30, 1966

Counter Sales	$599,620.00			
Catering Sales	85,000.00			
Total Sales			$684,620.00	
Cost of Goods Sold:				
Inventory 7/1/65	4,300.00			
Food Purchases	295,000.00			
	299,300.00			
Less Discounts	1,200.00			
	298,100.00			
Less Inventory 6/30/66	4,400.00			
Cost of Goods Sold	$293,700.00	(42.90%)		
Gross Profit on Sales	390,920.00	(57.10%)		
Other Income:				
Miscellaneous Income (Paper goods, etc.)	2,300.00			
Commissions (Vending, Juke Box, etc.)	2,000.00			
			4,300.00	
TOTAL INCOME			688,920.00	(100%)
Gross Profit on Income			395,220.00	(57.37%)
Less Expenses:				
Salaries--Regular	259,267.50	(37.63%)		
Salaries--Student	10,600.00	(1.53%)		
Office Service	6,400.00	(.93%)		
Supplies	24,500.00	(3.56%)		
Telephone	600.00	(.09%)		
Repairs and Maintenance	4,170.64	(.60%)		
Laundry	7,600.00	(1.10%)		
China and Silver	3,000.00	(.44%)		
Heat and Utilities	700.00	(.10%)		
Depreciation Expense	3,525.85	(.51%)		
Employee Group Insurance	3,700.00	(.54%)		
Travel and Education	800.00	(.12%)		
Advertising	125.00	(.02%)		
Uniforms	100.00	(.02%)		
Donated Coffee during Exams (twice yearly)	560.00	(.08%)		
TOTAL EXPENSES			$325,648.99	(47.27%)
			$ 69,571.01	(10.10%)
		Retained Income	60,000.00	
NET INCOME FOR PERIOD			$ 9,571.01	

Furniture, Fixtures and Improvements from Capital Account $21,896.00

May 20, 1965

STUDENT UNION FOOD SERVICE

REPAIRS AND MAINTENANCE

Exhaust Duct Cleaning and Fireproofing	$ 185.00
3 Doz. Hatch Chair Supports	60.64
Labor concerning electric grille installation in Hatch	125.00
Installation cost for food waste disposal	500.00
Hatch, new draperies	500.00
East Upper Hatch window screens	500.00
New dining room drapes	300.00
New east terrace redwood, lights, etc.	1,000.00
New walk-in service partition, doors, etc.	1,000.00
	$4,170.64

May 20, 1965

STUDENT UNION FOOD SERVICE EQUIPMENT DEPRECIATION

Beginning Depreciation Date	ITEM	Purchased From	Price	Cost Total
7/1/63	2 Sterno Chafing Dishes	Holyoke Equipment	$103.00	$ 206.00
7/1/63	Sterno Beverage Urn	Holyoke Equipment	150.00	150.00
7/1/63	Tray Lowerator	Holyoke Equipment	84.50	84.50
7/1/63	G. E. Ovens	Holyoke Equipment	1,206.85	1,206.85
7/1/63	St. Steel Table	Kittredge	199.00	199.00
7/1/63	Cup Lowerator	Holyoke Equipment	84.50	84.50
7/1/63	Mixing Bowl	Holyoke Equipment	45.00	45.00
7/1/63	Hot Dog Steamer	Holyoke Equipment	81.00	81.00
7/1/63	Boardmaster	Graphic Company	90.30	90.30
7/1/63	Aervoid Coffee	Holyoke Equipment	89.80	89.80
				$2,236.95
			10% Depreciation	223.69
			Plus accrued depreciation	3,302.16
			Total Depreciation	$3,525.85

May 20, 1965

STUDENT UNION FOOD SERVICE

CAPITAL IMPROVEMENTS

Large mobile cart with bumper for Catering (3 shelf)	$ 175.00
Desk for Catering, 55 x 30	90.00
Adding Machine for Catering	90.00
20 Stain-resistant tablecloths for Catering (round tables)@$5.45	109.00
2 Mobile food carters with shelves for Catering @ $125.00	250.00
Refrigerated cabinets for Catering Kitchen	500.00
Dining Room pictures or wall hangings	200.00
1 low mobile dish wagon with protective sides	250.00
Sterling silver candelabra set plus 2 singles for Catering	125.00
1 Mobile Aervoid coffee service wagon (with electric rod)	300.00
Additional slicing machine for Catering	550.00
2--5 Gal. Coffee containers (Aervoid) @ $96.00	192.00
Additional cash register for Hatch	1,700.00
Scales for receiving foods	125.00
Typewriter for Food Manager's office	200.00
15 Eight-foot tables @ $40.00	600.00
20 Round 60 inch diameter dining tables @ $50.00	1,000.00
Electric menu board for Hatch	300.00
Food waste disposal with table and feed cone	1,040.00
New supplementary portion control freezer	500.00
30 Tables (for 4) for Commonwealth Room @ $20.00	600.00
New Walk-in service cafeteria counter, service complete	13,000.00
	$21,896.00

May 20, 1965

UNIVERSITY STORE BUDGET, 1965-1966

	SUPPLIES	BOOKS	TOTAL
Sales	$370,000.00	$730,000.00	$1,100,000.00
Cost of Goods Sold	$259,000.00	$605,900.00	$ 864,900.00
Gross Profit, Sales	$111,000.00	$124,100.00	$ 235,100.00

Plus Other Income

	LOBBY	
	$ 87,000.00	$1,187,000.00
	$ 76,700.00	$ 941,600.00
	$10,300.00	$ 245,400.00
Post Office		$ 4,000.00
Misc.		$ 400.00
Lab. Collections		$ 9,000.00
Xerox		$ 13,000.00
Vending		$ 1,500.00
Checkroom		$ 900.00
Bus Tickets		$ 5,000.00
Total Income		$ 279,200.00

Less Expenses

Regular Payroll	$128,171.00	
Student Payroll	$ 12,000.00	
Employees Group Insurance	$ 1,400.00	
S. U. Service Charge	$ 670.00	
Supplies Expense	$ 3,500.00	
Insurance	$ 2,800.00	
Depreciation	$ 2,500.00	
Repairs, Maint.	$ 1,200.00	
Telephone & Telegraph	$ 800.00	
Postage & Trans.	$ 1,100.00	
Advertising	$ 300.00	
Laundry	$ 50.00	
Misc.	$ 3,000.00	
Education & Travel	$ 1,000.00	
Xerox Services	$ 8,250.00	
Total Expenses for Period	$166,741.00	$ 166,741.00
Net Income for Period		$ 112,459.00
Transfer to S. U. General Fund		$ 55,000.00
Retained Income		$ 57,459.00

Xerox Services

Supplies	$ 1,700.00
Rental	$ 550.00
Royalty	$ 6,000.00
Total	$ 8,250.00

BOSTON STORE BUDGET--1965-1966

	SUPPLIES	BOOKS	TOTAL	
Sales	$19,200.00	$44,800.00	$64,000.00	
Cost of Goods Sold	$13,440.00 (70%)	$37,184.00 (83%)	$50,624.00	18.6
Gross Profit, Sales	$ 5,760.00 (30%)	$ 7,616.00 (17%)	$13,376.00	21.4

Total Income		$13,376.00
LESS EXPENSES		
Regular Payroll	$10,838.00	
Student Payroll	$ 1,000.00	
Employees Group Insurance	$ 308.00	
Supplies Expense	$ 225.00	
Insurance	$ 500.00	
Repair Maint.	$ 150.00	
Telephone & Telegraph	$ 100.00	
Postage & General Trans.	$ 40.00	
Misc.	$ 100.00	
Total Expense	$13,261.00	$13,261.00
Net Income		$ 115.00

Payroll

Manager	$ 6,221.80
Senior Clerk (6-1)	$ 3,848.00
Temporary Rush	$ 768.20
Total	$10,838.00

Capitol Improvements

Fixtures	$10,000.00
Register	$ 2,000.00
Safe	$ 500.00
Office Equipment	$ 500.00
Total	$13,000.00

BOSTON--CAPITAL EQUIPMENT

Small Desk & Chair	$ 400.00
2 Typewriters	$ 700.00
2 Adding Machines	$ 600.00
Filing Cabinet	$ 60.00
2 Hand Trucks	$ 80.00
Vacuum Cleaner	$ 60.00
Marking Equipment	$ 100.00
	$2000.00

COUNSELING AND GUIDANCE OFFICE

UNIVERSITY OF MASSACHUSETTS

Amherst, Massachusetts

A N N U A L R E P O R T

July 1, 1964 - June 30, 1965

J. Alfred Southworth

Director

May, 1965

INTRODUCTION

This has been a year devoted in large measure to re-defining services and functions in the light of recent developments in counseling practice and data-processing, with the major goal being that of extending more and better services to a rapidly expanding University community.

Important information about and dimensions of the Counseling and Guidance service appear below.

I. APPROPRIATIONS

Account No.	1962-63	1963-64	1964-65
03	$17,500	$20,600	$24,900
10	250	300	350
11	--	--	--
12	25	30	62
13	2,150	2,500	2,800
14	1,200	900	1,400
15	50	770	1,000
16	750	1,490	4,320
	$21,925	$26,590	$34,832

II. PERSONNEL

Rank	Number Personnel Each Position:		
	Sept. 1962	Sept. 1963	Sept. 1964
Director of Counseling and Guidance Services	1	1	1
Asst. Director of Counseling and Guidance Services	1	1	1
Staff Assistant	1	1	2
Consultant	0	0	1/5
Senior Clerk and Typist	0	0	1
Junior Clerk and Typist	1	1	1

Three personnel changes (additions) occurred during 1964-65. Mrs. Eleanor M. Boyd became the second member of our secretarial staff in

October, 1964. She has assumed increasing responsibilities over the year. As our secretarial staff increases in size, it is anticipated that she will assume leadership and direction of this group of employees.

Mrs. Evelyn H. Russell came into the organization in September, 1964, to head special student advising. The position as originally conceived was to encompass foreign student affairs, liaison work with the schools and colleges, and administrative tasks associated with the Summer Counseling Program. As her work has evolved, she has spent nearly all of her time on foreign student matters. This has necessarily resulted in some sacrifice of services intended for our regular undergraduate student body. Many problems relating to foreign students are now being managed more efficiently than in recent years. The amount of professional time which was allocated to handling their affairs prior to this year was insufficient.

Dr. Robert C. Carkhuff, Assistant Professor of Psychology, has been devoting approximately one-fifth of his time to the Counseling and Guidance Office. He has come to be a most valued consultant on counseling cases, counseling process, and related research. Many of the innovations in counseling which were started this year are the result of his influence and efforts, combined with those of Dr. Bernard G. Berenson.

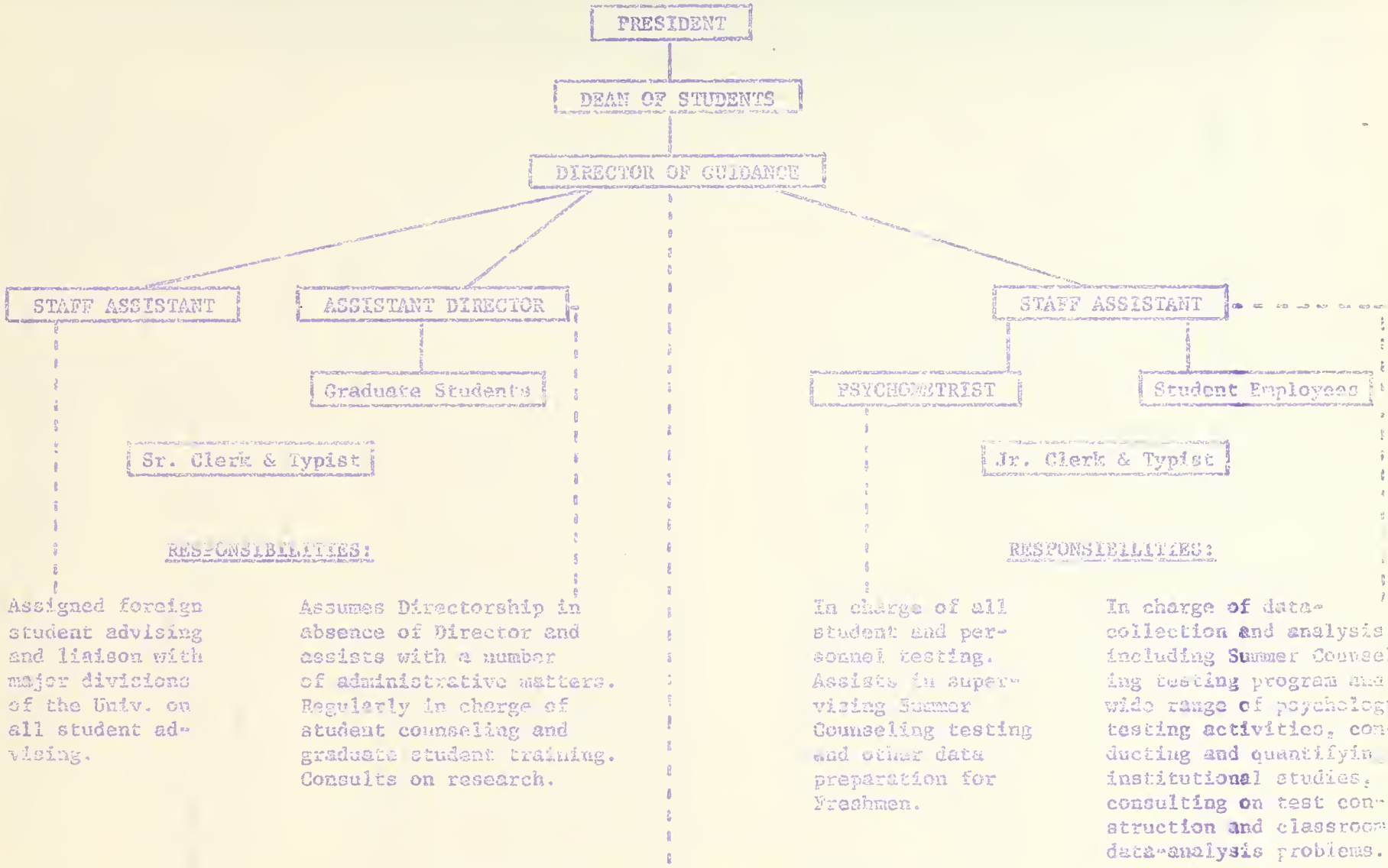
Dr. Bernard G. Berenson continues to inject new life and new direction into the organization. His strong academic interests plus his infectious enthusiasm for his work and for counseling objectives have resulted in his positively influencing the lives of many. People so influenced in 1963-64 include clients, undergraduates, and graduates, students encountered in the classroom, in dormitory talks, in thesis supervision, in training groups, and in a multitude of informal contacts in many settings. He has had a major influence in shaping our goals for 1965-66 toward a more integrated service-teaching-research organization with an increased emphasis upon training people who are in counseling or quasi-counseling roles in the University.

Mr. Simon V. Keochakian has been steadily extending our services on test- and other data-processing. He is increasingly spending time consulting on test construction and special data-processing problems relating to the use of our automated data-analyzing services by academic departments.

The growing demands of employee-personnel testing have increasingly absorbed the time and attention of Mrs. Marjorie Rodgers. These services have been extended over those performed in 1963-64. They have been improved as well by adding certain trade tests and by testing in the field in several instances this Spring, in an increased effort to locate highly qualified clerical personnel for the University. Mrs. Rodgers' cheerful and loyal attention to these and other psychometric problems continues to contribute to the effectiveness of the Counseling and Guidance Office.

Mrs. Gretchen Asmussen has been very happily relieved of much of the harassment which surrounded her last year, when she was attempting to serve as typist, receptionist, bookkeeper, and office manager all at once. She has been able to devote more of her time, with less interruption, to office affairs and typing tasks this year, with a resulting overall improvement in the handling of business and clerical problems in the office.

A great deal of credit must be given to the able and energetic student employees who serve us during Summer Counseling and throughout the winter months. The loyalty, zeal, and intelligence which they bring to bear upon their assignments extends the influence and accomplishments of the regular staff many fold.


PRESIDENT
DEAN OF STUDENTS
DIRECTOR OF GUIDANCE
STAFF ASSISTANT
ASSISTANT DIRECTOR
STAFF ASSISTANT
Graduate Students
PSYCHOMETRIST
Student Employees
Sr. Clerk & Typist
Jr. Clerk & Typist
RESPONSIBILITIES:
RESPONSIBILITIES:
Assigned foreign student advising and liaison with major divisions of the Univ. on all student advising.
Assumes Directorship in absence of Director and assists with a number of administrative matters. Regularly in charge of atudent counseling and graduate student training. Consults on research.
In charge of all student and personnel testing. Assists in supervising Summer Counseling testing and other data preparation for Freshmen.
In charge of data-collection and analysis, including Summer Counseling testing program and wide range of psychological testing activities, conducting and quantifying institutional studies, consulting on test construction and classroom data-analysis problems.
Over-all responsibility and supervision, including arranging, providing, and coordinating psychological counseling and testing services for entire student body, plus providing related data-processing and consulting services to Univ. Community

IV. STUDENTS AND OTHER CLIENTELE SERVED

1. Summer Counseling

Number of Freshmen, Returning, and Transfer Students Advised and/or Examined, Summer, 1964 - 3,019.

2. Counseling - Academic Year

In individual counseling, 452 students were seen for a total of 909 counseling contacts. In addition, 84 students were seen in group counseling or for training, for a total of 454 staff-student contact hours. Two staff members gave 125 hours to graduate student supervision. Three non-students were counseled.

The professional staff did not meet the demand for service. The majority of students who were seen waited one to two weeks for a first appointment, with 125 students seen immediately as "Drop-Ins." The outcome of counseling with the latter group is being compared with those who had to wait.

3. Foreign Students

The entire foreign student body of 248 students (219 are graduate students) and foreign research scholars, numbering about 30, were served in various ways by this office. On an average, 10 to 30 people "flow through" the office daily, 5 to 15 make contact by telephone. Mrs. Evelyn Russell has devoted considerable attention to problems relating to admissions, orientation of students to our culture, housing, financing, immigration, academics, and to matters relating to sponsoring agencies such as the AID (Agency for International Development). A number of emergencies, acute illness, for example, have been successfully handled through her action. Foreign students have, this year, achieved an impressive record of financial responsibility. At the moment, all commitments on loans made to them have been discharged by the students. See APPENDIX for statistical data on growth, country of origin, and concentration of graduate majors.

4. Candidates for University Employment

Approximately 1,040 candidates will have been examined for non-professional positions by June 30, 1965. Tests given to these candidates will total about 3,340. Approximately the same number of candidates were examined last year. Tests administered have increased 30% over 1963-64.

5. Other Clientele Served

We have provided ten outside agencies, including public schools, with test-scoring and related services which brought in approximately $1,435.00 in actual income. Fifteen University

departments, plus our own department, have received similar services, involving 80,000 tests scored. The dollar value of these services is in excess of $3,250.

We have continued to participate in national testing programs, which include the Graduate Record Examination, National Teacher Examination, Graduate Foreign Language Examination, etc. We will have given 290 Miller Analogies Tests by June 30, 1965.

V. STAFF PUBLICATIONS, RESEARCH GRANTS, RESEARCH PROJECTS, AND OTHER PROFESSIONAL ACTIVITY.

1. Publications Completed

a) Attitudes of the College Teacher: A Study of Occupational Choice. B. G. Berenson. Submitted, Personnel and Guidance Journal.

b) Scholastic Achievement As A Function of Selected Indices of Ego Identity. Counseling Center, University of Massachusetts. B. G. Berenson, A. Balasny.

c) Experiential-Experimental Counseling and Didactic-Experiential Teaching. J. A. Southworth, R. Carkhuff, B. G. Berenson. Paper read at APGA Convention, April, 1965.

d) Personality Characteristics of Engineering Majors. J. A. Southworth. Paper read at New England Engineering Educators Association Meeting, October, 1964.

2. Articles in Preparation

a) Do we have a vocational choice "theory?" A systematic approach to vocational constructs. R. Carkhuff, B. G. Berenson, J. A. Southworth.

b) The relationship among group members, with special focus upon type of leadership, participation, and feelings of acceptance. B. G. Berenson.

c) The variability of spontaneity and participation over time as a function of small group discussion. B. G. Berenson, J. A. Southworth, R. Carkhuff.

d) A comprehensive study of the process and outcome of training in counseling psychology. R. Carkhuff, B. G. Berenson, J. A. Southworth.

e) The effects of group supervision upon the therapeutic functioning of counseling trainees. B. G. Berenson, R. Carkhuff, J. A. Southworth.

f) The effects of group therapy upon the behavior and therapeutic functioning of counseling trainees. B. G. Berenson.

g) Client and therapist process variables in scheduled and walk-in counseling cases. B. G. Berenson, R. Carkhuff, J. Henderer.

h) Critical encounters in counseling: A didactic tape for counselors and therapists. B. G. Berenson, R. Carkhuff, J. A. Southworth, S. V. Keochakian.

i) A developmental series of studies of the impact of college environment upon personality, interest, activity, and attitudes of students. J. A. Southworth, S. V. Keochakian, B. G. Berenson, and R. Carkhuff.

j) The role of a social psychologist in a counseling-training program. R. Carkhuff, B. G. Berenson.

3. Books in Preparation

a) A Social-Psychological Study of Parents' Attitudes Toward Higher Education. J. A. Southworth, S. V. Keochakian, B. G. Berenson, R. Carkhuff.

b) The Cross-Cult Dimensions of Effective Counseling and Therapeutic Processes: A Book of Readings. R. Carkhuff, B. G. Berenson. (Outline submitted to publisher.)

c) The Facilitators and The Retarders. R. Carkhuff, B. G. Berenson.

d) Facilitative Counseling: Implications for Inter-Personal Relations. A Text. R. Carkhuff, B. G. Berenson.

4. Grant Supported

a) An investigation of the level of inter-personal functioning. A. Dormitory counselors. B Advisors. Faculty Research Grant. B. G. Berenson, R. Carkhuff, J. A. Southworth.

b) The differential effects of therapist race and social class upon client process variables. R. Carkhuff, B. G. Berenson, J. A. Southworth.

5. Other Professional Activities

a) Meetings Attended:

1. Annual Conference, African Scholarship Program of American Universities. Fordham University, New York. October, 1964. Mrs. Evelyn H. Russell.

2. New England Regional Meeting, National Association of Foreign Student Affairs. Harvard Univ., Massachusetts. February, 1965. Mrs. E. H. Russell, J. A. Southworth.

3. American Personnel and Guidance Association. Minneapolis, Minn. April, 1965. Paper delivered by J. A. Southworth.

4. National Conference, National Association for Foreign Student Affairs. Philadelphia, Pa. April, 1965. Mrs. Evelyn H. Russell.

5. NEBHE and CSLEA Sponsored: Conference on Counseling Adults. Chatham, Mass. May, 1965. J. A. Southworth.

b) Addresses:

1. Northampton High School, Senior Commercial Students. Education and Careers. J. A. Southworth.

2. Four-College Mental Health Group. The Role of a Foreign Student Advisor: An Adventure in Inter-Relatedness. Mrs. Evelyn H. Russell.

3. Guest Speaker at a number of U/Mass. dormitories. B. G. Berenson.

4. Ashfield PTA. The Transition From High School To College. J. A. Southworth.

c) Teaching and Training:

1. Psychology 88 and 188, Spring Semester. B. G. Berenson.

2. Training Dormitory Counselors for Summer Counseling Program. B. G. Berenson, J. A. Southworth.

3. Moderator: B. G. Berenson
   a) Women Dormitory Counselors' Training Program.
   b) AAUW Panel, Marriage Beyond Sex.

4. Classroom discussion on interests and occupational choice. Stockbridge School - 38 students. J. A. Southworth.

d) Other:

1. Consultation with Dormitory Counselors, Heads of Residence, and other University staff on student problems. Entire Professional Staff.

2. Professional Case Conferences. Entire Professional Staff.

3. Trip to Kenya, Africa. Interviewed Mr. Gordon Hagberg, IIE Representative, and Mr. Winifred Niblo, A.I.D. Office. December, 1964. Mrs. Evelyn H. Russell.

VI. MAJOR ACCOMPLISHMENTS

1. We have planned and implemented plans for expanding a total counseling program, including counseling services to students. This has included not only obtaining new positions, but clarifying and developing a philosophy which combines service, research, and teaching, all as part of an integrated, progressive service organization.

2. We have expanded our consultation services on test and questionnaire construction and on related and miscellaneous research and data-analyzing problems.

3. We have incorporated into Student Personnel services to foreign students. These services have been expanded in 1964-65. Many accumulating and difficult problems growing out of our institutional relations with foreign internationals have been eased over the past few months. This has been accomplished largely by creating a new professional position and assigning foreign student affairs to the incumbent as a major responsibility.

4. We have provided orientation and testing services to the largest freshman class in the history of the University. Automation of portions of the test data-processing and record-making procedures permitted us to do this with greater efficiency and greater individualization of services than was possible in previous years.

VII. SPECIAL PROJECTS

1. A special research undertaking, exploring the possibilities of training students and staff in interpersonal relations skills, was conducted this Spring by Drs. Benson, Carkhuff, and Southworth. A successful outcome of this research will have important implications for the campus. A potent tool for combatting the de-personalizing, de-humanizing effects which many associate with bigness is the hoped-for outcome of this research. It has equally significant implications for effective teaching and student development. Initial findings of the research should be available in the Fall of 1965.

VIII. FUTURE PLANS AND NEEDS

1. Personnel

Three new counseling positions, to be filled September 1, 1965, will probably enable us to meet student requests for services in 1965-66 and still have time to develop teaching and training groups for dormitory counselors and various staff members.

New staff will be needed to conduct research on a grant that is being facilitated by us to study student culture over the next three years. One professional research person and a research assistant are required.

Another person, a technical assistant, is required to make our data-analyzing operation fully functional. It is hoped that this position will be assigned in the near future -- by September 1, 1965, at the latest.

Two new clerical positions are needed at present.

2. Facilities

Mainly, office space will be critical until we move to the new Administration Building. Steps have been taken to meet our most pressing needs until that time.

3. Equipment

We are inadequately equipped with tape recorders, dictating and duplicating equipment, and typewriters at this time. It is hoped that we will be able to purchase enough equipment in 1965-66 to meet these needs. Equipment lists prepared for the new Administration Building have anticipated our growth adequately, it is believed.

A P P E N D I X

QUANTITATIVE DATA ON OPERATIONS, 1964 - 1965

A. STUDENTS SERVED

1. Summer Counseling	3,019
(Test Scores Computed - 30,200)	
2. Counseling Clientele, Academic Year	
Individual Counseling	452
Group Counseling	84
Non-Students Counseled	3
(Total Staff-Student Contact Hours - 1,488)	
(Associated Test Scores Computed - 196)	
3. Teaching	
Students Enrolled - Psychology 88	22
Students Trained	23

B. EMPLOYEE CANDIDATES EXAMINED

1. Women	714
2. Men	326

C. FOREIGN STUDENTS AND SCHOLARS SERVED

1. Students	248
2. Scholars	30

A P P E N D I X (Cont.)

D. OTHER DATA ON FOREIGN STUDENTS

1. Growth:

	1962-63	1963-64	1964-65
Total No. of Students	112	154	248

2. Country of Origin:

	#		#
China	82	Israel	6
India	26	Greece	6
Canada	17	Kenya	5
Korea	14	Germany	5
Philippines	7		

(Eighty other students are distributed among 35 additional countries, none of which have more than 4 students.)

3. Concentration of Graduate Majors:

	#		#
Chemistry	31	German	6
Government	20	Statistics	6
Civil Engineering	16	Zoology	6
Food Technology	15	Agri. Economics	5
Economics	14	Bus. Adminis.	5
English	12	Education	5
Agri. Engineering	11	Indus. Engineering	5
Physics	11		

(Fifty other students are distributed among 23 additional majors, none of which have more than 4 students.)

UNIVERSITY OF MASSACHUSETTS
College of Arts and Sciences

ANNUAL REPORT

Period Covered: July 1, 1964 through June 30, 1965

Submitted to: President John W. Lederle

Submitted by: I. Moyer Hunsberger

I. Moyer Hunsberger
Dean, College of Arts and Sciences
July 26, 1965

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I. BUDGET ALLOCATIONS

Account	FY 1963	FY 1964	FY 1965
03	$ 44,879	$ 45,000	$ 88,100[5]
10	11,550	11,600	17,775
11	1,000	1,200	1,000
12	16,000	13,000	20,955
13	90,686	100,000	131,725
14	6,200	28,200[2]	38,500[2]
15	78,555[1]	90,000[1]	143,825[3]
16	5,385	2,750	8,000
TOTALS	$254,255	$291,750	$449,880[3]
Salaries(01,02)	$2,518,096	$3,426,447	$4,103,957 89,000[6]
Grand Totals	$2,772,351	$3,718,197	$4,642,837
Library	$ 25,000	$ 285,000[4]	$ 206,500[7]

(1) Does not include special allocations made to individual departments.
(2) Includes allocation for telephone charges.
(3) Does not include $116,725 specially allocated from federal funds.
(4) Includes $250,000 in Bankhead-Jones money.
(5) Does not include $89,000 for salaries of part-time teachers transferred to this account by the Treasurer's Office.
(6) Salaries of part-time teachers (03).
(7) Includes $145,000 in Bankhead-Jones money.

II. ORGANIZATION CHARTS

A. LIST OF DEPARTMENTS BY (UNOFFICIAL) DIVISIONS

Dean's Office

Chinese
History of Science

Fine and Performing Arts	Humanities	Social Sciences	Biological Sciences
Art	English	Economics	Botany
Music	German-Russian	Government	Microbiology
Speech	History	Psychology	Zoology
	Philosophy	Sociology-Anthropology	
	Romance Languages		

Physical Sciences	Mathematics and Statistics
Astronomy[1]	Mathematics
Chemistry	Statistics[2]
Geology-Geography	
Physics	

---

(1) Four-College department.
(2) Not yet established as a separate department.

B. DEPARTMENTS AND DEGREES OFFERED

Department	Bachelor's	Master's	Ph.D.
Art	X	X	-
Astronomy[1]	X	-	-
Botany	X	X	X
Chemistry	X	X	X
Economics	X	X	X
English	X	X	X
Geology	X	X	X
Geography[2]	-	-	-
German-Russian	X	X	X
Government	X	X	X
History	X	X	X
Mathematics	X	X	-[3]
Microbiology	X	X	X
Music	X	-	-
Philosophy	X	X	X
Physics	X	X	X
Psychology	X	X	X
Romance Languages	X	X	X
Sociology-Anthropology	X	X	X
Speech	X	X	-
Statistics[2]	-	X	-
Zoology	X	X	X
TOTALS	20	19	15

(1) Four-College department. (2) Not formally a department.
(3) Ph.D. to be offered starting in September, 1965.

III. PERSONNEL

A. PROFESSIONAL PERSONNEL

TABLE 1 presents figures on numbers of professional personnel in the College from 1962-63 through 1964-65. During this period our faculty increased by 31.9% (from 280 to 369 1/4 full-time equivalent faculty). Despite this dramatic increase in the size of our faculty, our student-to-faculty ratio declined somewhat because our teaching load (as measured by student credit hours or full-time equivalent students) increased by 33.0% (see Section IV of this report).

Between 1962-63 and 1964-65 the number of teaching assistants in our College increased by more than 100% (from 139 1/2 to 288). This large increase was necessary because of the woefully inadequate number of teaching assistants in 1962-63.

The most distressing fact about the breakdown of our faculty by rank is that between 1962 and 1964 virtually no progress was made in increasing the proportion of our faculty at the two highest ranks. Although the approved staffing pattern of the University specifies 45% of the faculty in the upper two ranks, our actual figures were 38.7% (1962) and 39.5%(1964). While the University staffing pattern specifies 30% of the faculty as Assistant Professors, our actual figures varied from 34.1% (1962) to 35.5% (1964).

Chemistry (with 10) and Zoology (with 3) continue to be the only departments which attract full-time postdoctoral research associates (on grant funds).

TABLE 2 presents a three-year breakdown of faculty by department, by division, and by rank. In the fall of 1964, only two divisions - Social Sciences (with 47%) and Biological Sciences (with 56%) had a higher percentage of faculty in the top two ranks than called for by the University manning table. The corresponding percentages for the other divisions were 29% (Fine and Performing Arts), 31% (Mathematics and Statistics), 37% (Humanities), and 39% (Physical Sciences). The four departments which, in September 1964, had the lowest percentage of faculty in the top two ranks were Speech (16%), Microbiology (17%), Mathematics (18%), and German-Russian (21%).

Between 1962 and 1964 the greatest increase (44%) in divisional faculty was registered by Fine and Performing Arts, while the least increase (24%) was registered by Physical Sciences. The other four divisions showed increases of 29% (Biological Sciences and Mathematics and Statistics), 31% (Humanities), and 38% (Social Sciences). During the same period, the two departments with the lowest increases in faculty size were Geology (10%) and Physics (15%). On the other hand, four departments increased in size by 50% or more: Music (60%), Art (57%), Philosophy and Microbiology (50% each).

The percentage breakdown of our faculty by divisions remained remarkably constant between September 1962 and September 1964. During this period the faculty in Fine and Performing Arts increased from 9.3 to 10.2% of our total faculty, while Social Sciences increased from 16.1 to 16.8. The other four divisions showed slight decreases: Physical Sciences (16.8 to 15.7%); Biological Sciences and Mathematics and Statistics (10.0 to 9.8%); and Humanities (37.8 to 37.7%).

TABLE 3 summarizes professional personnel actions taken during the last three years. Despite a substantial increase in the number of faculty, the number of promotions declined from 26 (1962) to 25 (1964), and the number of tenure appointments declined from 12 (1962) to 11 (1964). The smaller number of tenure appointments is the direct result of our post-autonomy tenure policy, under which we have a considerably longer period than formerly in which to make decisions on tenure. During the past three years, the number of faculty resignations decreased from 24 (1962) to 18 (1964), while the number of terminations increased from 7 (1962) to 13 (1964). The number of sabbaticals granted increased from 15 (1962) to 21 (1964), and the number of leaves without pay increased from 10 (1962) to 19 (1964). Under pre-autonomy conditions, faculty merit increases were scarce as hens' teeth. During the last three (post-autonomy) academic years the number of merit increases has gone up from 174 (1962) to 250 (1964).

TABLE 1: PROFESSIONAL POSITIONS BY RANK[1]: FALL SEMESTER

	1962	1963	1964
(a) Administration			
Dean	1	1	1
Associate Dean	1	1	1
Assistant Dean	0	0	1 1/2
Totals	2	2	3 1/2
(b) Faculty			
Professor	66 1/2 (23.7%)	69 (21.8%)	82 (22.2%)
Associate Professor	42 (15.0%)	54 (17.0%)	64 (17.3%
Assistant Professor	95 1/2 (34.1%)	104 1/4 (32.8%)	131 (35.5%
Instructor	76 (27.2%)	90 1/4 (28.4%)	92 1/4 (25.0%
Totals	280 (100.0%)	317 1/2 (100.0%)	369 1/4 (100.0
(c) Non-Teaching			
Staff Associate (Chemistry)	1	1	0[2]
Staff Assistant (Dean's Office)	1	1	1
Totals	2	2	1
(d) Graduate Teaching Assistants			
01	78 1/2	6	45
03	61	202	243
Totals	139 1/2	208	288
(e) Postdoctoral Research Associates[3]			
Chemistry		9	10
Zoology		4	3
Totals		13	13

---

(1) The figures listed are for positions filled and are expressed in full time equivalents. Some figures are very slightly different from those which appeared in the budget document for FY 1967 and in earlier annual reports. However, the figures given here are believed to be the most accurate. All have been taken from our office records.

(2) This position has been downgraded to Staff Assistant and is filled for Sept.'65.

(3) Not on state funds.

TABLE 2: FACULTY BY DIVISION, DEPARTMENT, AND RANK[1]: FALL SEMESTER

	1962					1963					1964				
	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total
Fine & Perf. Arts															
Art	1	1	1	4	7	1	2	1	5	9	1	3	2	5	11
Music	2	--	1	2	5	2	--	2	2½	6½	3	1	1	3	8
Speech	1	2	6	5	14	1	2	6	7	16	1	2	6½	9	18½
TOTALS	4	3	8	11	26	4	4	9	14½	31½	5	6	9½	17	37½
Humanities															
English	10	6	14	15	45	10	10	14	14	48	11	13	18½	11	53½
Ger.-Russ.	3	--	4	6	13	3	1	5	6	15	3	1	6	9	19
History	5	4	7	6	22	5	5	9	7¼	26¼	5	6	11	7¼	29¼
Philosophy	1	--	2	1	4	1	1	1	2	5	1	1	2	2	6
Rom. Lang.	3	5	6	8	22	3	4	6	11	24	5	6	8	12	31
TOTALS	22	15	33	36	106	22	21	35	40¾	18¾	25	27	45½	41¾	138¾
Social Sciences															
Economics	3½	1	2	3	9½	4	1	2	4	11	4	1	3	5	13
Government	5	3	2	1	11	5	3	3	2	13	6	5	3	3	17

TABLE 2: FACULTY BY DIVISION, DEPARTMENT, AND RANK[1]: FALL SEMESTER (cont'd)

	1962					1963					1964				
	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total
Social Sciences (continued)															
Psychology	6	--	6	1	13	6	--	6	2	14	6	1	7½	2	16½[3]
Soc.-Anthr.	3	3	5½	--	11½	3	3	6½	2	14½	4	2	8½	1	15½
TOTALS	17½	7	15½	5	45	18	7	17½	10	52½	20	9	22	11	62
Biol. Sciences															
Botany	2	3	3	1	9	2	3	3	1	9	4	3	3	1	11
Microbiol.	1	--	2	1	4	1	--	3	1	5	1	--	4	1	6
Zoology	6	5	3	1	15	6	5	4	1	16	7	5	7	--	19
TOTALS	9	8	8	3	28	9	8	10	3	30	12	8	14	2	36
Physical Sciences															
Astronomy								1		1			1		1
Chemistry	5	3	13	3	24	6	5	13	4½	28½	7	5	14	5½	31½
Geol-Geogr.	2	1	5	2	10	2	2	4	1	9	2	2	5	2	11
Physics	3	2	3	5	13	3	3	4	4	14	4	3	6	2	15
TOTALS	10	6	21	10	47	11	10	22	9½	52½[2]	13	10	26	9½	58½

TABLE 2: FACULTY BY DIVISION, DEPARTMENT, AND RANK[1]: FALL SEMESTER (cont'd)

	1962					1963					1964				
	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total	Prof.	Assoc. Prof.	Asst. Prof.	Instr.	Total
Math. & Stat.															
Mathematics	3	3	10	11	27	4	4	9¾	13	30¾	6	4	12	11	33
Statistics	1	--	--	--	1	1	--	1	--	2	1	--	2	--	3
TOTALS	4	3	10	11	28	5	4	10¾	13	32¾	7	4	14	11	36
Chinese														½	½
COLLEGE TOTALS[4]	66½	42	95½	76	280	69	54	104½	90½	317½	82	64	131	92½	369½

(1) The figures listed are for positions filled and are expressed in full-time equivalents.

(2) Staff Associate not counted here.

(3) Assistant Deans counted as ½ time in department.

(4) The totals are very slightly different from those which appeared in the budget document for FY 1967 and in earlier annual reports. However, the figures given here are believed to be the most accurate. All have been taken from our office records. Earlier figures sometimes counted administrators as teaching faculty, whereas these figures include only actual teaching faculty.

TABLE 3: PROFESSIONAL PERSONNEL ACTIONS

	1962	1963	1964
(a) Effective September 1			
Promotions	26	11	25
Tenure Appointments	12	15	11
(b) Effective August 31			
Resignations	24	17	18
Terminations	7	4	13
Retirements	1	1	1
Deceased	1	1	0
(c) Effective Sometime During Academic Year			
Merit Increases	174	268	250
Sabbaticals	15	18	21
Leaves of Absence without Pay	10	9	19

B. NON-PROFESSIONAL PERSONNEL

TABLE 4 presents a three-year breakdown of both secretarial positions (SP) and technical positions (TP) by rank.

TABLE 5 lists FP/SP ratios (fall of 1964) for each department and division, as well as the highest ranking SP in each department.

TABLE 6 compares both FP/SP and FP/TP ratios for the College for the past three years.

Although the FP/SP ratio has decreased from 8.5 (1962) to 7.9 (1964), I maintain that this ratio should be reduced to 5.0 as soon as possible. Our emphasis on Ph.D. work is rapidly increasing, and faculty with active graduate programs require far more secretarial help than faculty who teach undergraduates exclusively. Of even greater concern is the lack of high-ranking secretarial positions in our College. It is scandalous that a College containing 369 1/4 F.T.E. faculty (in 1964) should have only one principal clerk, particularly since seven of our departments (English, German-Russian, History, Romance Languages, Zoology, Chemistry, and Mathematics) had 19 or more faculty in September of 1964. The highest ranking secretarial position in five of our departments (Art, Speech, Philosophy, Economics, and Geology) is Junior Clerk Stenographer (Grade 03), even though these departments vary in size from 6 to 18 1/2 faculty. The English department had more than 50 faculty before a principal clerk was assigned to that department. Any department with 20 or more faculty certainly should merit a principal clerkship.

Between September 1962 and September 1964 this College received only four technical positions. Hence, our FP/TP ratio increased from 12.7 (1962) to 14.2 (1964). I regard this situation as inexcusable, particularly when it is remembered that our Ph.D. work increased greatly during the same period. Development of truly outstanding science departments will be precluded if this situation is not drastically improved in the very near future.

The most common personnel complaint of the department heads in this College is that they do not have enough secretarial and technical positions.

TABLE 4: NON-PROFESSIONAL POSITIONS BY RANK: FALL SEMESTER

	1962	1963	1964
Secretarial			
Junior Clerk, Typist (02)	7 1/2	6	6
Junior Clerk, Steno (03)	19 1/2	23	25
Senior Clerk, Typist (06)	2	5	7
Senior Clerk, Steno (07)	7	10	12
Principal Clerk (09)	0	0	1
Totals	36	44	51
Non-Secretarial (Technical)			
Laboratory Helper (02)	1	1	1
Laboratory Assistant (04)	7	7	8
Herbarium Curator (07)	1	1	1
Laboratory Technician (07)	0	1	1
Technical Assistant (08)	7	7	8
Storekeeper (09)	2	2	2
Machinist (09)	2	2	2
Electronics Technician (10)	2	2	2
Machinist Foreman (11)	0	0	1
Totals	22	23	26

TABLE 5: FACULTY POSITIONS (FP) AND SECRETARIAL POSITIONS (SP): FALL, 1964

Note: All figures are for positions filled.

Division	Department	FP	SP	FP/SP Ratio	Highest Ranking Position[3]
Fine and Performing Arts	Art	11	1	11.0	JCS
	Music	8	1	8.0	SCS
	Speech	18 1/2	2	9.2	JCS
Division Totals		37 1/2	4	9.4	
Humanities	English	53 1/2	6	8.9	PC
	German-Russian	19	1 1/2	12.6	SCT
	History	29 1/4	3	9.8	SCS
	Philosophy	6	1	6.0	JCS
	Romance Languages	31	3	10.3	SCS
Division Totals		138 3/4	14 1/2	9.6	
Social Sciences	Economics	13	1	13.0	JCS
	Government	17	2	8.5	SCS
	Psychology	16 1/2	3	5.5	SCT
	Sociology-Anthr.	15 1/2	2	7.7	JCS
Division Totals		62	8	7.7	
Biological Sciences	Botany	11	2	5.5	SCT
	Microbiology	6	1 1/2	4.0	SCS
	Zoology	19	4	4.7	SCS
Division Totals		36	7 1/2	4.8	
Physical Sciences	Astronomy	1	-	--	---
	Chemistry	31 1/2	5	6.3	SCS
	Geology-Geography	11	2	5.5	JCS
	Physics	15	3	5.0	SCT
Division Totals		58 1/2	10	5.8	

TABLE 5: FACULTY POSITIONS (FP) AND SECRETARIAL POSITIONS (SP): FALL, 1964
(continued)

Division	Department	FP	SP	FP/SP Ratio	Highest Ranking Position[3]
Mathematics and Statistics	Mathematics	33	2	16.5	SCS
	Statistics	3	1[1]	3.0	JCS
Division Totals		36	3	12.0	
Chinese		1/2	-	--	---
GRAND TOTALS		369 1/4	47	7.9	
Dean's Office		3 1/2	4[2]		SCS

(1) This position carried, for bookkeeping purposes, in the English Department.
(2) Mrs. Dowd's position (Staff Assistant) is a professional position and therefore not included in this tabulation.
(3) Abbreviations:
JCS = Junior Clerk Steno
SCT = Senior Clerk Typist
SCS = Senior Clerk Steno
PC = Principal Clerk

TABLE 6: RATIOS OF FACULTY POSITIONS (FP) TO SECRETARIAL POSITIONS (SP) AND TO TECHNICAL POSITIONS (TP): FALL SEMESTER (1962-64)[1]

	1962	1963	1964
FP	280	317 1/2	369 1/4
SP	33[2]	41[2]	47[2]
FP/SP Ratio	8.5	7.7	7.9
FP	280	317 1/2	369 1/4
TP	22	23	26
FP/TP Ratio	12.7	13.8	14.2

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(1) All computations are based on faculty positions from Table 1 of this report and on secretarial and technical positions from Table 4 of this report.

(2) Does not include SP assigned to the Dean's Office.

IV. STUDENTS

The 1963-64 academic year represents the close of the first decade in the history of the College of Arts and Sciences! During each semester of 1963-64, our College taught over 100,000 student credit hours (SCH) for the first time. I regard this as a noteworthy landmark and one that indicates - in no uncertain terms - that we can never again be regarded as a small college.

In the fall of 1964 our College had 4647 undergraduate majors and 909 graduate students majors. It is interesting to observe that our total of undergraduate majors was only 402 less than the combined undergraduate enrollment of Amherst, Mount Holyoke, and Smith Colleges and was 1317 greater than the combined total of undergraduate majors in the other eight Colleges and Schools of this University. Our 909 graduate students represent 49% of the University total. The 175 Ph.D. Committees and 209 Master's Committees reflect our steadily increasing emphasis on Ph.D. work, as compared with Master's level work.

Although our College, during 1963-64, had only 58% (4647 out of 7977) of the University's undergraduate majors, it accounted for 75% (104,031 out of 138,792 SCH) of the total teaching effort of the University. Our Division of Humanities (six departments) did more teaching (37,521 SCH) than the combined total (34,761 SCH) for the other eight Colleges and Schools of this University.

TABLES A through E present quantitative summaries of various aspects of our services to students.

TABLE A shows the SCH taught, by department and division, for each semester of the 1963-64 academic year. Information on numbers of courses and sections taught and on numbers of thesis committees (Honors, Masters, and Ph.D.) also is presented. The percentage of the College's total teaching effort (in SCH) contributed by our various divisions during the fall semester of 1963-64 is shown in the left column of figures below. The right column of figures presents the percentage of our College's total Ph.D. thesis committees for which each division was responsible.

Division	% of Total SCH	% of Total Ph.D. Committees
Fine & Performing Arts	6.9	0
Humanities	36.0	18.9
Social Sciences	23.7	32.6
Biological Sciences	9.8	13.1
Physical Sciences	13.3	35.4
Mathematics & Statistics	10.3	0
Totals	100.0	100.0

The above table clearly shows that 60% of the College's total teaching load is absorbed by the Humanities and Social Science Divisions, while 68% of the total Ph.D. load is absorbed by the Physical Science and Social Science Divisions. Three of our departments taught more than 10,000 SCH during the fall semester: English (16,485), History (10,086), and Mathematics (10,001). Three of our departments also had more than 20 Ph.D. Committees: Chemistry (58), Government (27), and Psychology (22).

Our College as a whole offered 430 courses (1583 sections) during the fall semester and 453 courses (1636 sections) during the spring semester.

TABLE B presents undergraduate majors and graduate majors by department and division for the fall semester of 1962, 1963, and 1964. The only one of our six divisions to show a decrease in undergraduate majors was Physical Science (from 276 in 1962 to 239 in 1964, and each of the four departments contributed to the decline. Each of the other five divisions showed increases in undergraduate majors ranging from 6.3% (Math. and Statistics) to 51.4% (Fine and Performing Arts), the latter figure being attributable mostly to the 100% increase in Art majors (from 54 to 107). The total of undergraduate majors in the College increased 26.4% (from 3677 to 4647) during the same period. The Humanities and Social Science divisions both exhibited nearly the same increase in undergraduate majors (37.7 and 35.5%, respectively), while the Biological Sciences increased at a somewhat lower rate (21.7%) than the College as a whole. In the Fall of 1964, four of our departments had more than 400 majors (English - 779; Government - 514; History - 465; Mathematics - 438), while five departments had less than 30 majors (Microbiology - 29; Botany and Philosophy - 27 each; Music - 17; Astronomy - 9).

The three departments having the largest number of graduate majors in 1964 were Chemistry (154), English (119), and Psychology (97), whereas in 1962 the corresponding three departments were Chemistry (70), Government (69), and Psychology (62). In 1964, Chemistry was the only department with more graduate majors (154) than undergraduate majors (138), and this is the first year that this situation obtained for any department in this College. The rapid growth of the Ph.D. program in English is particularly noteworthy since it was first introduced in September of 1963. This department had 41 graduate majors in 1962 as compared with 119 in 1964. Other departments whose graduate majors have increased drastically between 1962 and 1964 are Art (4 to 28), Speech (9 to 25), History (29 to 66), Philosophy (6 to 15), Romance Languages (14 to 29), Economics (16 to 44), Psychology (62 to 97), and Microbiology (9 to 16). Because the Government graduate program had expanded too rapidly in earlier years, this department's graduate majors were held at a nearly constant figure between 1962 (69) and 1964 (74). The number of graduate majors in the College as a whole increased by 84% (from 494 to 909) between 1962 and 1964, but the percentage of University graduate students majoring in Arts and Science departments dropped slightly (from 51 to 49%). If an acceptable definition of a full-time graduate student could be devised, it seems certain that this College would have far more than 50% of the full-time graduate students at the University.

TABLE C presents another aspect of the student clientele of this College, namely the number of full-time equivalent students (S) by department and division for 1962, 1963, and 1964. These figures, when compared with those in TABLE B, offer a rough,,but striking, measure of the service teaching performed by this College. The last column in TABLE C also presents the student-to-faculty (S/F) ratio (in September, 1964) for each department and each division.

The total number of undergraduate majors in this College has increased by 26.4% (from 3677 to 4647) from 1962 to 1964 (TABLE B), whereas our total number of full-time equivalent students (S) increased by 33.0% (from 5212 to 6934) (TABLE C). Although only the Physical Science Division decreased (by 13.4%) in number of majors (from 276 to 239) during the above period, this Division increased in S by about 12% (from 825 to 921). The other five divisions, however, showed even larger increases in S, the individual values being 29% (Mathematics and Statistics), 35% (Biological Sciences and Social Sciences), 40% (Humanities), and 44% (Fine and Performing Arts). Hence, both TABLES B and C confirm the fact that the Fine and Performing Arts is the most rapidly expanding division of the College.

Three departments showed a decrease in S between 1962 and 1964: Microbiology (from 111 to 60); Geology-Geography (from 176 to 149); and Physics (from 187 to 169).

TABLE D shows that, despite our enormous recruiting effort during the past two years, the S/F ratio in this College was slightly higher in 1964 (18.8) than in 1962 (18.6). It is expected that this ratio will drop (to perhaps 18.0) in September of 1965.

While no one would maintain that the S/F ratio should be the same in all departments, or even all divisions, of the College, the 1964 value for the Social Sciences (26.5) probably is too high. Certainly the S/F ratio of 33.5 in Government must be reduced, and this was kept in mind in allocating new faculty positions for September, 1965. The two departments which have S/F ratios of 10 or lower are Music (8.6) and Microbiology (10.0). The division with the lowest S/F ratio is Fine and Performing Arts (12.4). Although a detailed analysis of S/F ratios cannot be presented here, we are making every effort to allocate faculty positions so as to enable each department to have classes of the size it considers to be desirable.

TABLE E summarizes both undergraduate and graduate degrees awarded by our College for the past three years. The total number of degrees awarded has increased by 27.6% (from 699 to 892), while the number of bachelors degrees has increased by 23% (from 580 to 715). Particularly heartening is the increase in Ph.D. degrees (from 21 in 1962-63 to 33 in 1964-65). For the first time (at least in recent years), Chemistry (with 11) has led in production of Ph.D's; however,

Psychology (the old leader) was a close second (with 9). Of the 33 Ph.D's in 1964-65 only one (History) was in the Humanities, but last year (1963-64) there was one Ph.D. awarded in German.

Although the number of bachelors degrees increased by 23% (from 580 to 715), the number of B.S. degrees remained fairly constant from 1962-63 (135), through 1963-64 (135) to 1964-65 (144). This is yet another reflection of the fact that major enrollments in the physical sciences are declining somewhat, whereas major enrollments in the non-sciences are steadily increasing. It seems likely that during the coming year (1965-66) this College will be responsible for a total of over 1000 degrees.

In summary, three different measures of our student clientele demonstrate that, between the 1962-63 and 1964-65 academic years, our teaching services to students increased about 30%, i.e. about 15% per year. To be more specific, the undergraduate majors in our College increased by 26.4%, the full-time student equivalents (S) increased by 33.0%, and the degrees awarded increased by 27.6%.

TABLE A: TEACHING LOAD SUMMARY (1963-64) BY DEPARTMENT, DIVISION, AND SEMESTER

Note: Figures for SCH (Student Credit Hours), #Sec. (Number of Sections), and #Courses (Number of Courses) were compiled from departmental reports and include both undergraduate and graduate courses. For the fall semester, SCH are listed both from departmental reports (DR) and from the IBM summary (IBM). Figures for Number of Thesis Committees were compiled from Faculty Service Load Cards.

	FALL SEMESTER				SPRING SEMESTER			THESIS COMMITTEES		
	SCH				SCH			HONORS		
Fine & Perf. Arts	DR	IBM	#Sec.	#Courses	(DR)	#Sec.	#Courses	SPEC. PROBS.	Masters	Ph.D.
Art	2604	2558	34	19	2154	27	15	19	2	0
Music	895	1040	10	17	1551	8	17	0	0	0
Speech	3169	3395	76	24	3992	77	27	8	18	0
TOTALS	6668	6993	120	60	7697	112	59	27	20	0
Humanities										
Engl.-Journ.	16060	16485	252	41	16735	238	42	10	30	15
German	3207	3446	55	14	2834	76	15	2	4	12
Russian	546		11	6	471	12	8	0	0	0
History	10314	10086	170	39	9831	164	34	13	2	0
Philosophy	1365	1326	21	9	1479	19	11	2	3	3
Rom. Lang.	7263	6178	122	33	6570	148	36	4	2	3
TOTALS	38,755	37,521	631	142	37,950	657	146	31	41	33

TABLE A: TEACHING LOAD SUMMARY (1963-64) BY DEPARTMENT, DIVISION, AND SEMESTER (continued)

	FALL SEMESTER				SPRING SEMESTER			THESIS COMMITTEES		
	SCH				SCH			HONORS		
Social Sciences	DR	IBM	#Sec.	#Courses	(DR)	#Sec.	#Courses	SPEC. PROBS.	Masters	Ph.D.
Economics	3657	3566	33	19	3540	33	17	2	2	1
Government	6132	8548	85	22	6456	80	29	13	33	27
Psychology	8778	7304	55	28	7736	64	35	8	43	22
Sociology	4848	5256	25	19	5496	26	19	5	6	7
Anthropology	525		8	6	798	9	8	0	0	0
TOTALS	23940	24674	206	94	24026	212	108	28	84	57
Biol. Sciences										
Botany	2649	3024	74	8	2877	70	10	4	11	5
Microbiology	634	900	12	7	507	13	6	3	4	1
Zoology	6514	6332	102	15	5260	89	16	12	11	17
TOTALS	9797	10256	188	30	8544	172	32	19	26	23

TABLE A: TEACHING LOAD SUMMARY (1963-64) BY DEPARTMENT, DIVISION, AND SEMESTER (continued)

	FALL SEMESTER				SPRING SEMESTER			THESIS COMMITTEES		
	SCH				SCH			HONORS		
Phys. Sciences	DR	IBM	#Sec.	#Courses	(DR)	#Sec.	#Courses	SPEC. PROBS.	Masters	Ph.D.
Astronomy	813	768	8	4	253	4	4	0	0	0
Chemistry	8200	8280	172	29	6517	210	30	8	17	58
Geology	1792	1905	45	13	1541	54	14	10	14	4
Geography	342	337	7	2	444	7	2	0	0	0
Physics	2635	2531	68	16	2887	77	16	1	7	0
TOTALS	13782	13821	300	64	11,642	352	66	19	38	62
Math. & Stat.										
Mathematics	11606	10001	131	34	9151	125	36	0	0	0
Statistics	810	738	7	6	954	6	6	2	0	0
TOTALS	12416	10739	138	40	10105	131	42	2	0	0
Chinese		27								
COLLEGE TOTALS	105,358	104,031[1]	1583	430	100,064	1636	453	126	209	175

(1) This figure is somewhat larger than the 103,152 used in our recently submitted budget because in the interval we discovered that the IBM summary has split the SCH for one department into 3 parts and that we had used only one part in the budget.

TABLE B: STUDENT MAJORS (FALL SEMESTER) BY DEPARTMENT AND DIVISION

	1962			1963			1964		
Fine & Perf. Arts	UG	G	Total	UG	G	Total	UG	G	Total
Art	54	4	58	75	7	82	107	28	135
Music	16	0	16	14	0	14	17	0	17
Speech	68	9	77	68	16	84	85	25	110
TOTALS	138	13	151	157	23	180	209	53	262
Humanities									
English	598	41	639	681	78	759	779	119	898
Ger.-Russ.	51	19	70	69	21	90	72	25	97
History	320	29	349	399	34	433	465	66	531
Philosophy	17	6	23	23	7	30	27	15	42
Rom. Lang.	140	14	154	175	13	188	207	29	236
TOTALS	1126	109	1235	1347	153	1500	1550	254	1804
Social Sciences									
Economics	96	16	112	121	25	146	113	44	157
Government	395	69	464	440	73	513	514	74	588
Psychology	214	62	276	272	63	335	303	97	400
Soc.-Anthr.	127	25	152	156	25	181	197	41	238
TOTALS	832	172	1004	989	186	1175	1127	256	1383

TABLE B: STUDENT MAJORS (FALL SEMESTER) BY DEPARTMENT AND DIVISION (cont)

	1962			1963			1964		
Biol. Sciences	UG	G	Total	UG	G	Total	UG	G	Total
Pre-professional	280	0	280	340	0	340	317	0	317
Botany	23	16	39	27	15	42	27	23	50
Microbiology	26	9	35	32	16	48	29	16	45
Zoology	136	49	185	159	48	207	193	65	258
TOTALS	465	74	539	558	79	637	566	104	670
Phys. Sciences									
Astronomy	14	0	14	16	0	16	9	0	9
Chemistry	151	70	221	157	118	275	138	154	292
Geol.-Geogr.	43	15	58	33	20	53	34	22	56
Physics	68	20	88	60	21	81	58	26	84
TOTALS	276	105	381	266	159	425	239	202	441
Math. & Stat.									
Mathematics	412	21	433	461	32	493	438	35	473
Statistics	0	0		0			0	5	5
TOTALS	412	21	433	461	32	493	438	40	478
COLLEGE TOTALS[1]	3249 (3677)	494	3743 (4193)	3711 (3976)	632	4410 (4598)	4129 (4647)	909	5038 (5551)

(1) The top row of figures is derived from the Registrar's statistical summary. The parenthesized bottom row of figures is derived from a report of the Office of Institutional Studies. The differences between these two sets of figures probably is largely attributable to the fact that the counts are made at different times of the year.

TABLE C: FULL-TIME EQUIVALENT (F.T.E.) STUDENT ENROLLMENT (FALL SEMESTER) BY DEPARTMENT AND DIVISION; STUDENT TO FACULTY (S/F) RATIOS FOR FALL, 1964

S = F.T.E. Students = $\frac{\text{Total SCH (IBM Summary)}}{15}$ F = F.T.E. Faculty

	1962	1963	1964		
Fine & Perf. Arts	S	S	S	F	S/F Ratio
Art	93	143	171	11	15.5
Music	36	53	69	8	8.6
Speech	195	207	226	18 1/2	12.2
TOTALS	324	403	466	37 1/2	12.4
Humanities					
Engl.-Journ.	796	964	1099	53 1/2	20.5
Ger.-Rus.	164	199	230	19	12.1
History	410	538	672	29 1/4	23.0
Philosophy	63	83	88	6	14.7
Rom. Lang.	346	412	412	31	13.3
TOTALS	1783	2196	2501	138 3/4	18.0
Social Sciences					
Economics	188	189	238	13	18.3
Government	345	257	570	17	33.5
Psychology	342	426	487	16 1/2	29.5
Soc.-Anthr.	338	255	350	15 1/2	22.6
TOTALS	1219	1127	1645	62	26.5

TABLE C: FULL-TIME EQUIVALENT (F.T.E.) STUDENT ENROLLMENT (FALL SEMESTER) BY DEPARTMENT AND DIVISION; STUDENT TO FACULTY (S/F) RATIOS FOR FALL, 1964 (continued)

	1962	1963	1964		
Biol. Sciences	S	S	S	F	S/F Ratio
Botany	96	154	202	11	18.4
Microbiology	111	63	60	6	10.0
Zoology	299	336	422	19	22.2
TOTALS	506	553	684	36	19.0
Phys. Sciences					
Astronomy	22	24	51	1	51
Chemistry	438	470	552	31 1/2	17.5
Geol-Geogr.	176	147	149	11	13.5
Physics	187	178	169	15	11.3
TOTALS	825	819	921	58 1/2	15.7
Math. & Stat.					
Mathematics	554	633	666	33	20.2
Statistics	1	27	49	3	16.3
TOTALS	555	660	715	36	19.9
Chinese			1.9	1/2	3.8
COLLEGE TOTALS	5212	5758	6934	369 1/4	18.8

TABLE D: STUDENT TO FACULTY (S/F) RATIOS (FALL SEMESTER)[1]

	1962	1963	1964
S/F Ratio	18.6	18.1	18.8

(1) Computations based on figures for F.T.E. students (S) from Table C and on figures for F.T.E. faculty (F) from Section III.B of this report.

TABLE E: DEGREES AWARDED

	1962-63	1963-64[1]	1964-65
B.A.	445	478	571
B.S.	135	135	144
Total Bachelors	580	613	715
M.A.	72	51	82
M.F.A.	0	0	1
M.S.	26	66	64
Total Masters	98	117	147
Ph.D.	21	23	33[2]
Grand Total	699	753	892

(1) Figures in this column are corrected from last year's report.
(2) The breakdown by major departments is shown below:

Botany	1	Geology	1
Government	2	History	1
Microbiology	3	Psychology	9
Chemistry	11 (1 of these is a 4-College Cooperative Degree in Biochemistry)		
Zoology	5 (1 of these is a 4-College Cooperative Degree).		

V. FACULTY PUBLICATIONS, RESEARCH PROJECTS, AND OTHER PROFESSIONAL ACTIVITIES

A. PUBLICATIONS

During the report period, the Arts and Sciences faculty authored some 207 articles, 31 books and monographs, and 28 chapters in books - not to mention book reviews, art exhibits, encyclopedia articles, abstracts, poems, and short stories.

TABLE F presents a breakdown, by department and division, of the numbers of publications in the various categories.

The College total of 31 books and monographs amounts to about one book or monograph per 12 faculty members. However, 16 were authored by Humanities faculty and 10 by Social Science faculty. The record of the English department is remarkable in that 11 books were authored by members of this department, i.e. one book for each 5 faculty members! For more details, see TABLE G and the individual departmental reports.

TABLE F: FACULTY PUBLICATIONS (1964-65)

Division	Department	Books & Monographs	Chapters in Books	Articles	Book Reviews[1]	Other[2]
Fine and Performing Arts	Art	1	0	5	5	55
	Music	0	0	0	0	0
	Speech	0	0	2	8	0
TOTALS		1	0	7	13	55
Humanities	English	11	5	31	15	19
	Ger.-Rus.	0	3	5	1	0
	History	3	5	9	0	0
	Philosophy	2	1	0	0	0
	Rom. Lang.	0	0	11	9	1
TOTALS		16	14	56	25	20
Social Sciences	Economics	1	0	0	0	5
	Government	4	5	7	0	0
	Psychology	2	2	41	0	0
	Soc.-Anthr.	3	1	2	2	0
TOTALS		10	8	50	2	5
Biolgical Sciences	Botany	0	0	11	0	0
	Microbiology	0	0	13	0	0
	Zoology	0	0	15	0	0
TOTALS		0	0	39	0	0
Physical Sciences	Astronomy	0	0	0	0	0
	Chemistry	2	3	37	0	0
	Geol.-Geogr.	2	1	6	0	15
	Physics	0	2	7	0	0
TOTALS		4	6	50	0	15
Math. & Stat.	Mathematics	0	0	5	3	0
	Statistics	0	0	0	0	0
TOTALS		0	0	5	3	0
COLLEGE TOTALS		31	28	207	43	95

(1) A number of departments did not report book reviews authored by its faculty.
(2) Art exhibitions, encyclopedia articles, abstracts, poems, short stories, etc.

TABLE G: BOOKS AND MONOGRAPHS, BY DEPARTMENT AND DIVISION (1964-65)

FINE AND PERFORMING ARTS (1)

Art (1)

Coughlin, Jack -- Drawings in Twelve Birds (poems by Herbert Kenny), University of Massachusetts Press, 1964.

HUMANITIES (16)

English (11)

Clark, David R. -- W. B. Yeats and the Theater of Desolate Reality, The Dublin Press, Dublin, 1965; Dufour Editions, Chester Springs, Pa., 1965.

Golden, Morris -- Thomas Gray (Twayne English Authors Series #6) Twayne Publications, New York, 1964.

Halley, Anne -- Between Wars and Other Poems, Gehenna Press, Northampton, Mass., 1965, 69pp.

Halpern, Martin -- William Vaughn Moody, Twayne Publishers, 1964; paperback edition, 1965, 208 pp.

Kim, Richard -- The Martyred. (Published before this report period, this book now has been translated and published in 10 foreign languages.)

Langland, Joseph -- The Wheel of Summer, 2nd edition, Dial Press, New York, 1964.

Mayer, Milton -- What Can a Man Do? University of Chicago Press, 1964.

Oickle, Alvin -- A Training Program for Newspaper Reporters (manual), Mimeographed at University of Massachusetts, 1965, 118 pp.

Fetler, Andrew -- The Travelers, Houghton Mifflin, New York, 1965.

Spivack, Bernard -- Shakespeare and the Allegory of Evil, 2nd printing Columbia University Press, 1964.

Wolf, Melvin -- Faultes, Faults and Nothing Else But Faultes (1606) by Barnaby Rich, edited with Introduction and Notes, Scholars' Facsimiles and Reprints, Gainesville, 1965.

TABLE G: BOOKS AND MONOGRAPHS, BY DEPARTMENT AND DIVISION (1964-65)
(continued)

History (3)

Caldwell, Theodore C. -- editor, The Anglo-Boer War, D. C. Heath, 1965, 103 pp.

Quint, Howard H. and Cantor, Milton -- co-editors with Dean Albertson, Main Problems in American History, 2 volumes, Dorsey Press, 1964, 720 pp.

Quint, Howard H. -- The Forging of American Socialism, Revised edition, Bobbs-Merrill, 1964, 409 pp.

Philosophy (2)

Moore, Edward C. and Robin, Richard S., editors -- Studies in the Philosophy of Charles Sanders Peirce, Second Series, University of Massachusetts Press, 1964, 514 pp.

Moore, Edward C. -- William James, Washington Square Press, New York, 1965, 194 pp.

SOCIAL SCIENCES (10)

Economics (1)

Howard, Marshall -- Legal Aspects of Marketing, Mc-Graw Hill, 1964, 164 pp.

Government (4)

Lewy, Gunter -- The Catholic Church and Nazi Germany, Mc-Graw Hill, 1964, 416 pp.

Havard, William C. -- Rural-Urban Consolidation: The Merger of Government in the Baton Rouge Area, Louisiana State University Press, 1964, 181 pp. (Co-authored with Floyd L. Corty).

Havard, William C. -- The Government and Politics of the United States, Harper and Row, 1965, 246 pp.

Oppenheim, Felix -- Dimensioni della Liberta, Felbrinelli, Milano, 1964. (Italian translation of Dimensions of Freedom).

TABLE G: BOOKS AND MONOGRAPHS, BY DEPARTMENT AND DIVISION (1964-65)
(continued)

Psychology (2)

Carkhuff, R.R. -- The Counselor's Handbook: Scale and Profile Interpretations of the MMPI, Parkinson, Urbana, Ill., 1965.

Goss, A. E. and Nodine, C. F. -- Paired-Associates Learning: The Role of Meaningfulness, Similarity, and Familiarization, Academic Press, 1965.

Sociology-Anthropology (3)

Driver, Edwin D. -- The Sociology and Anthropology of Mental Illness, University of Massachusetts Press, 1965, 160 pp.

King, C. Wendell, and Driver, Edwin D. -- Report on Retrieval Study of the Professional Person Overseas, Mimeographed, July 1964 at University of Massachusetts, 79 pp.

Wilkinson, Thomas O. (co-author) -- Hospital Utilization and Demographic Change in Franklin County, Massachusetts: 1950-1960, University of Massachusetts Population Research Institute, 1964, 31 pp.

BIOLOGICAL SCIENCES (NONE)

PHYSICAL SCIENCES (4)

Chemistry (2)

Brewster, R. Q. and McEwen, W. E. -- Organic Chemistry (Japanese translation), Prentice-Hall of Japan, 1964, 926 pp.

Richason, George R., Jr., editor -- General Chemistry Workbook and Laboratory Manual, 4th edition, 2nd printing, University of Massachusetts, 1964, 132 pp.

Geology (2)

Dinwiddie, G. A. and Motts, Ward S. -- Availability of Ground Water in parts of the Acoma and Laguna Indian Reservations, New Mexico: U.S. Geological Survey, Water-Supply Paper 1576-E, 1964, 65 pp.

TABLE G: BOOKS AND MONOGRAPHS, BY DEPARTMENTS AND DIVISION (1964-65)
(continued)

Motts, Ward S. and Cushman, R. L. -- An Appraisal of the Possibilities of Artificial Recharge to Ground Water Supplies in part of Roswell Basin, New Mexico: U.S. Geological Survey, Water Supply Paper 1785, 1964, 85pp.

MATHEMATICS AND STATISTICS (NONE)

B. SPONSORED RESEARCH PROJECTS

Sponsored research in the College continues to show a vigorous growth, as summarized in TABLE H for the past five years and as presented in detail for 1964-65 in TABLE J. The amount of sponsored research, as measured by the amount of money spent per year by research projects, has increased by almost one million dollars from 1960-61 to 1964-65. From 1962-63 to 1964-65 it has increased by 46% (almost half a million dollars), whereas the number of faculty in the eight departments (Chemistry, Psychology, Zoology, Microbiology, Botany, Speech, Physics, and Geology) largely responsible has increased by only 26% (from 102 to 128.5). The overhead from research grants in this College amounted to slightly more than a quarter of a million dollars during 1963-64.

Of the $1,454,881 spent by research projects throughout the College, three departments together comprising 67 faculty members, accounted for more than one million dollars: Chemistry ($441,839), Psychology ($327,059), and Zoology ($322,721). Although Chemistry accounted for the largest amount of money spent by research projects, the amounts spent by both Psychology and Zoology are considerably larger if the departmental totals are divided by the number of faculty: Psychology ($19,800), Zoology ($17,000), and Chemistry ($14,000). The total spent by Microbiology research projects ($92,956) is remarkable when it is realized that 4 faculty members alone are responsible, thus giving an expenditure of $23,200 per faculty member.

It is noteworthy that the total face value of Zoology's research grants amounts of $1,552,061, whereas the corresponding amounts in Chemistry and Psychology are $1,148,054 and $679,487. Undoubtedly, these figures reflect the long-term nature of the grants.

Most of the research projects in the non-science departments are supported by the Research Council, and the number of these grants has increased at a most heartening rate during the past few years. Since research in the non-sciences usually cannot attract outside support and since such research costs much less than research in the sciences, it is incumbent for the University to offer liberal support. I firmly believe that no university can be great unless it is great in the non-sciences.

TABLE H: RESEARCH GRANTS AND CONTRACTS (1960-1965)

	Oct. 1960 - Sept. 1961	Oct. 1961 - June 1963 (21 months)		July 1963 - June 1964	July 1964 - June 1965
		Total (21 months)	Prorated (12 months)[1]		
Total Number	134	181	103	178	216
Total Spent	$477,359	$1,000,550	$571,743	$1,023,643	$1,454,881
Approx. Overhead (based on 18%)	$ 85,924	$ 180,099	$102,914	$ 184,256	$ 261,879

(1) All figures in the 4th column are 12/21 of the corresponding figures in the 3rd column. Hence, the figures in the 4th (prorated) column should be comparable with those in the 2nd, 5th, and 6th columns.

TABLE I: RESEARCH GRANTS AND CONTRACTS (1964-65)

	Continuing			New			Total
	No.	Face Value	Amount Spent	No.	Face Value	Amount Spent	Amount Spent
Fine & Perf. Arts							
Art	0	$	$	3	$ 3,789	$ 2,800	$ 2,800
Music	0			3	1,020	1,020	1,020
Speech	3	46,710	46,260	1	17,400	13,500	59,760
TOTALS	3	$ 46,710	$ 46,260	7	$ 22,209	$ 17,320	$ 63,580
Humanities							
English	3	$ 2,390	$ 2,194	6	$ 22,009	$ 13,026	$ 15,220
German-Russian	0			3	1,755	1,755	1,755
History	9	5,290	5,290	4	1,896	1,896	7,186
Philosophy	0			0			
Romance Languages	1	1,000	1,000	3	1,325	75	1,075
TOTALS	13	$ 8,680	$ 8,484	16	$ 26,985	$ 16,752	$ 25,236
Social Sciences							
Economics	0	$	$	2	$ 9,210	$ 9,210	$ 9,210
Government	0			7	11,875	11,875	11,875
Psychology	17	571,012	254,264	13	108,475	72,795	327,059
Sociology-Anthr.	3	26,860	12,500	6	45,494	1,400	13,900
TOTALS	20	$ 597,872	$ 266,764	28	$ 175,054	$ 95,280	$ 362,044

TABLE I: RESEARCH GRANTS AND CONTRACTS (1964-65) (continued)

	Continuing			New			Total
	No.	Face Value	Amount Spent	No.	Face Value	Amount Spent	Amount Spent
Biological Sciences							
Botany	8	$ 140,032	$ 68,050	6	$ 170,140	$ 11,000	$ 79,050
Microbiology	3	114,500	76,356	3	159,481	16,600	92,956
Zoology	20	981,388	253,887	13	570,673	68,834	322,721
TOTALS	31	$1,235,920	$ 398,293	22	$ 900,294	$ 96,434	$ 494,727
Physical Sciences							
Astronomy	0	$	$	0	$	$	$
Chemistry	34	724,719	348,369	28	423,335	93,470	441,839
Geology-Geogr.	4	105,475	20,925	3	2,390	730	21,655
Physics	4	91,600	42,800	3	81,000	3,000	45,800
TOTALS	42	$ 921,794	$ 412,094	34	$ 506,725	$ 97,200	$ 509,294
Math. & Stat.							
Mathematics	0	$	$	0	$	$	$
Statistics	0			0			
TOTALS	0	$	$	0	$	$	$
COLLEGE TOTALS	109	$2,810,976	$1,131,895	107	$1,631,267	$ 322,986	$1,454,881

C. OTHER PROFESSIONAL ACTIVITIES OF THE FACULTY

These are so numerous and so diverse that a meaningful summary is difficult to provide. However, listed below by department and division are those faculty who are editors or are on the editorial boards of scholarly publications. Important offices in professional societies, distinguished counsultantships, and prizes awarded to our faculty also are included. While every effort was made to make this list complete, a certain selection was inevitable based on my subjective (and possibly uneven) definition of the word "important".

Division	Faculty Member	Department	Position Held
FINE & PERF. ARTS	P.F. Norton	Art	Editor, Journal of Society of Architectural Historians. Director, Society of Architectural Historians
	L. N. Perkins	Art	Secretary, Design Division, American Ceramics Association.
HUMANITIES	J. Chametzky	English	Co-editor, Massachusetts Review.
	A. R. Duckert	English	Associate Editor, Names.
	J. H. Hicks	English	Co-editor, Massachusetts Review.
	S. Kaplan	English	Editor, Gehenna Press (Northampton, Mass.)
	B. Spivack	English	Editor, World Publishing Co.
	M. Cantor	History	Editor, Labor History
	M.S. DePillis	History	Editor, American Section of Journal of Social History.
	R. A. Potash	History	Editorial Board, Hispanic-American Historical Review. Consultant to U.S. State Dept. on Argentine affairs.
	I. Rothberg	Rom. Lang.	Editor-in-chief, Hispania.

Division	Faculty Member	Department	Position Held
HUMANITIES	R. Taylor	Rom. Lang.	Associate Editor, Renaissance Society of America. Member, National Fulbright Committee for France.
	S. Weiner	Rom. Lang.	Managing Editor, The French Review General Editor, A Critical Bibliography of French Literature.
SOCIAL SCIENCES	M. C. Howard	Economics	Editorial Staff, Journal of Marketing.
	S. Epstein	Psychology	Member, NIH Small Grants Committee.
	A. E. Goss	Psychology	Associate Editor, Psychological Reports.
	M. M. Gordon	Sociology	Anselm-Wolf Award and Brotherhood Award (National Conference of Christians and Jews) for his book, Assimilation in American Life.
BIOLOGICAL SCIENCES	J. L. Rowley	Botany	Editorial Board, Grana Palynologica.
	C. D. Cox	Microbiology	Editorial Board, Journal of Microbiology. Chairman, Standards and Examinations Committee, National Registry of Microbiologists, American Board of Microbiology, American Society of Microbiology.
	C. Pfau	Microbiology	NIH Career Development Award (effective Sept. 1,1965).
	D. Fairbairn	Zoology	Editorial Board, American Journal of Epidemiology. Editorial Board, The Journal of Parasitology.

Division	Faculty Member	Department	Position Held
BIOLOGICAL SCIENCES	D. Fairbairn	Zoology	Editorial Board, Experimental Parasitology. Chairman, Tropical Medicine and Parasitology Study Section, NIH.
	B.M. Honigberg	Zoology	Editorial Board, Transactions of American Microscopical Society. Editorial Board, The Journal of Protozoology. President, American Microscopical Society. Executive Committee, American Society of Protozoologists.
PHYSICAL SCIENCES	W. E. McEwen	Chemistry	Member, Visiting Committee for Chemistry, Brookhaven National Laboratory. Consulting Editor, Topics in Phosphorus Chemistry (Interscience).
	R. S. Stein	Chemistry	Chairman, ACS Division of High Polymer Science. Editor, Journal of Polymer Science.
	R. L. Gluckstern	Physics	Consultant to Brookhaven National Laboratory and Los Alamos Scientific Laboratory on Theory of High Energy Accelerators.

Details of a variety of other professional activities of our faculty are given in the attached departmental reports.

VI. MAJOR ACCOMPLISHMENTS AND SPECIAL PROGRAMS

A. ASSISTANT DEANS

In an effort to improve the handling of student academic affairs and the communication between students and faculty, three "half-time" Assistant Deans were appointed in September of 1964, each with a special commitment to the students of one class. Associate Dean Wagner coordinated the work of these Assistant Deans and continued to work with the Class of 1965. Professor Harry Schumer (Psychology) concentrated on the Class of 1966, Professor Leonta Horrigan (English) devoted herself to the Sophomores, and Professor J. Savereid (Speech) worked with the Freshmen. It is anticipated that each Assistant Dean will stay with "his class" until the class graduates, at which time the Dean may or may not be reappointed for another term of office. In September, 1965, Associate Professor Duncan Rollason (Zoology) will become full-time Assistant Dean. Half of his time will be devoted to taking charge of student academic affairs for the incoming Freshmen (Class of 1969). The other half of his time will be devoted to assisting both Dean Wagner and myself with a variety of tasks. In particular, he may be asked to take responsibility for the preparation of a Ten-Year Report of the activities of our College (1955-1965) since its inception.

Student appeals for special academic consideration during the past year were handled by the four persons mentioned above. Cases requiring discussion were discussed by the four Deans, and a consensus usually resulted. Through the efforts of the Assistant Deans, each department has designated one faculty member as "chief academic adviser"; this person is in charge of departmental advising for both majors and non-majors. Each Assistant Dean has held meetings with a group of representative students from "his" class to exchange views on academic questions. The idea of four Faculty-Student Nights, to be implemented during 1965-66, was developed by the Assistant Deans. Dean Field has reported that the Assistant Deans have produced a noticeable improvement in communications with students and a noticeable decrease in the number of students who wander into his office wondering where to turn for additional academic advice.

Prior to each counseling day in 1964-65 the Assistant Deans arranged a series of meetings at whioh a student could learn about the various major academic programs. While attendance at these meetings was small, the students who did come were appreciative of the opportunity. Moreover, Dean Schumer has collected information on factors involved in a student's decision to change his major. He plans to continue this study in the hope of making available to more students the information they need.

Despite a large amount of publicity, the Student Convocation held by our College on October 1, 1964 was a miserable failure in terms of student attendance (which was voluntary). We held this meeting in the Curry Hicks Cage, but less than 100 students attended.

Even though students seem little interested in more communication between students and faculty on academic matters, we plan to devote more - rather than less - effort to this enterprise because we believe that constructive action on our part will add strength and vitality to our entire educational effort.

B. NEW DEPARTMENT HEADS

The well-known advantages of the "honeymoon" year to the contrary notwithstanding, I am convinced that in Professors Bezanson (Music), Gluckstern (Physics), Havard (Government), Shapiro (Botany), and Strother (Mathematics) our College has located five truly outstanding Department Heads.

Professor Strother's recruitment record during his first year here is UNPARALLELED in the history of this College! Up to now (July 10, 1965) he has recruited 21 new members of the Mathematics department for September of 1965, a large proportion of which are capable of supervising Ph.D. dissertations. This total, which includes 9 new positions and 12 replacements, shows an admirable distribution by rank: Professor (5), Associate Professor (4), Assistant Professor (9), and Instructor (3). This enormous recruitment effort is particularly timely because the department is instituting Ph.D. work in September of 1965, because the S/F ratio in Mathematics (fall of 1964) was very high (20.2), and because a large portion of our current faculty is not oriented toward original research. Almost without exception, Professor Strother appears to have appointed faculty who, at the very least, are good teachers; some of the new appointees come to us with truly distinguished teaching records at other institutions. All this has been accomplished apparently without alienating older members of the present faculty. In Professor Strother we appear to have both a first-class recruiter and a first-class administrator.

Professor Gluckstern's recruiting record in Physics also has been truly outstanding. Already he has recruited a total of 9 new faculty members (7 new positions and 2 replacements), 2 of whom start in 1966. This total includes 4 associate professors and 5 assistant professors, not to mention the one assistant professor who came here with him from Yale in September of 1964. All of the new appointees come from responsible positions at well-known institutions, e.g. Yale, Princeton, Berkeley, Illinois, Johns Hopkins, Wisconsin, MIT, and Brookhaven. What is of equal importance, Professor Gluckstern, through his wide circle of professional acquaintances, has publicized the plans of our Physics Department throughout the United States. He also has succeeded in appointing research-oriented faculty members while simultaneously earning the whole-hearted respect of his present faculty because of his earnest devotion to good teaching. On the basis of his first year in administrative work I have no hesitation in predicting that his potential as an administrator and recruiter is unlimited.

Although he has had less spectacular success in recruitment, Professor Shapiro has established himself as a fine administrator who quickly earned the warm respect of each member of the Botany Department. The old "cliques" seem to have disappeared, and the department has the potential to improve spectacularly if certain pending negotiations reach a climax favorable to us. Professor Shapiro's concern for good undergraduate teaching and for quality before quantity in Ph.D. work has been plainly evident. He seems likely to emerge as one of the major faculty statesmen on this campus in the near future.

In one short year Professor Bezanson has converted a chaotic and ineffective Music Department into a unified whole which now knows where it is going and which is organized so as to get there. Showing a rare discrimination in deciding on priorities, he has rejuvenated the undergraduate program and has encouraged his faculty to perform in public. There can be no question that he has quickly earned the respect of the Music departments in the other Valley colleges. In addition, he has appointed for 1965 two highly competent new members of the faculty and has devoted much effort to student recruitment. He is certain to exert an exemplary effect on the development of the entire campus program in the Fine Arts.

In his quiet and unassuming manner Professor Havard has made 7 new faculty appointments in the Government department for September, 1965. Because of the present distribution of faculty ranks in his department, 5 of the new appointees are Assistant Professors, 1 is an Instructor, and 1 is a Full Professor to head the Bureau of Government Research. Because consulting with the faculty is second nature to him, he has greatly increased the morale of his junior faculty while earning the genuine respect of the senior faculty. His broad background and experience as a department head have been invaluable to us.

During 1964-65 the searches for new department heads in Economics and German-Russian have been fruitless, so these searches must be continued. In addition, it will be necessary to locate new Heads for the Department of Speech and the Department of Philosophy, since Professors Niedeck and Shute have expressed their desire to be relieved from administrative tasks. If possible, I also hope to locate a suitable Head for the Russian section of the present German-Russian department.

C. SPECIAL EQUIPMENT ALLOCATION FOR HIGH-ENERGY PHYSICS

The special allocation of $100,000 for equipment to start experimental work in high-energy physics has served notice on the physics community that the University of Massachusetts is serious about developing a physics department of major stature. The bubble chamber group will start work in September, 1965 in collaboration with Brookhaven National Laboratory and the high energy group at Yale. It seems safe to predict that this "seed" money will permit our high energy group to obtain a major grant from the outside. Without this "seed" money, Professor Gluckstern's major faculty recruiting effort (described in Section VI B) would not have been possible.

D. HONORARY SOCIETIES

The University of Massachusetts chapter of Phi Beta Kappa (Nu of Massachusetts) was installed officially on this campus on March 30, 1965. A major address was delivered by Professor Henri Peyre of Yale University. Up to the present 28 members of the class of 1965 and 5 members of the class of 1966 have been initiated into membership.

The attempt to obtain a chapter of Psi Chi - the national honorary fraternity in Psychology - apparently made little progress during the past year.

Work with respect to petitions to establish chapters of Alpha Chi Sigma and Phi Lambda Upsilon (honorary chemical fraternities) on this campus has not proceeded beyond the preliminary stages.

E. ATLANTIC STUDIES

A grant proposal requesting $326,000 for four years to initiate a new curriculum in Atlantic Studies in cooperation with the University of Freiburg (Germany) was rejected by the Ford Foundation. An attempt will be made during the coming year to revitalize this program with more emphasis on its graduate aspect. It may be possible to start a small-scale program without grant support.

F. NEW GRADUATE PROGRAMS

In September of 1964 new Four-College cooperative Ph.D. programs were initiated in Spanish and in Philosophy. Professor Molina's decision to return to NYU will cause a temporary set-back in the Spanish program, but a search is underway for a highly competent replacement at the Full Professor level.

A new Ph.D. program in Physics was initiated in September of 1964. In September, 1965 a new Ph.D. program in Mathematics will be set to go in the fields of analysis, algebraic topology, and orthomodular lattices.

During the past year the MFA program in theater was begun, and the first MFA degrees in Art were awarded in June of 1964.

Progress toward the contemplated cooperative Ph.D. in Astronomy has come to a halt, presumably until the University can locate sufficient personnel to take sole responsibility for graduate offerings. Since Professor Linnell has resigned as Chairman of the Four-College Astronomy department, our astronomer will be attached to the Physics Department at least for the coming year.

In 1964 our first Ph.D. in the Humanities was awarded by the Department of German. This past June the first Ph.D. in History was awarded.

New, more stringent requirements have been instituted for MS and Ph.D. students in Botany. The graduate degree requirements in Government also have been tightened, and the ratio of graduate students to members of the graduate faculty in Government has been reduced considerably.

G. NEW UNDERGRADUATE PROGRAM

Four departments (Music, Physics, Economics, and Geology) have made sizeable revisions in their undergraduate curricula. A four-year B.A. program in Music has been established which meets the standard national requirements in the areas of Music Education, Music Theory and Composition, Music History, and Applied Music. Entering Freshmen who wish to major in Music now are auditioned in their performance medium by the departmental faculty. A new undergraduate major in Anthropology has been instituted, and a summer field course in Archeology was initiated in June, 1965 on the University property in Nantucket.

The beginning course in History has been reorganized and will be taught next year within the rubric of history of ideas. Professor Edgar Johnson (of Brandeis) has been appointed to take charge of this course and will coordinate the efforts of the faculty teaching it. This reorganization - as well as the planning for a new introductory course in Chemistry and the reorganization of a beginning course for Physics majors - is being supported by the Provost's Special Fund for Course Improvement and Educational Experimentation. The creation of this special fund is, in my opinion, one of the most praiseworthy educational actions taken by the University in recent years.

Two new course sequences (starting in September, 1965) have been developed in German and in Russian. One sequence (open to non-majors) involves a shift from four 3-credit courses to three 4-credit courses; the other (open to majors) involves a shift from four 3-credit courses to four 4-credit courses. The old sequence of four 3-credit courses still remains available to students who do not desire to accelerate. Two German corridors - each supervised by a native-speaking graduate teaching assistant - will be instituted in Orchard Hill in September, 1965. A Spanish corridor also has been established. In cooperation with the other Colleges in the Valley a Classics major program has become a reality.

The Botany department will institute three non-laboratory courses next year; a non-laboratory course in Zoology was offered this year for the first time. However, the possibility of offering a one-semester, unified course in biological science has received sufficient discouragement from the departments involved that the idea has been temporarily abandoned.

In September, 1965 the Government department will offer a new introductory sequence of courses which will parallel Government 25 and 26 but which will be taught from the viewpoint of functional comparative government.

A placement procedure used on entering Freshmen with respect to the Speech requirement has been introduced. The use of available facilities for closed-circuit TV has not developed. At present, no TV is used in any classes in this College.

The Board of Trustees has approved a change in the College graduation requirements which add statistics to the options available for fulfilling the Mathematics and Science requirement.

This College has added a total of 27 new courses for the next academic year. There have also been 16 cases of revision and updating of courses, 4 cases of revision and expansion of courses, and 3 cases of revision and reduction of courses.

H. WOODROW WILSON FELLOWSHIPS

The following undergraduate students in this College were awarded Woodrow Wilson Fellowships for graduate study:

Steven Coleman	Psychology
Robert B. Hallock	Physics

This total of 2, when added to the 8 received in the two preceding years, amounts to 10 fellowships over the past three years.

J. GRADUATE FELLOWSHIPS (OTHER THAN WOODROW WILSON)

The various departments in this College have been awarded a total of 61 NDEA fellowships, 31 University fellowships, 7 NASA traineeships, and 5 NSF traineeships for the 1965-66 school year, as itemized below:

Division	Department	NDEA	UNIV.	NASA	NSF.	TOTALS
Fine & Perf. Arts	Art	--	2	--	--	2
	Music	--	--	--	--	--
	Speech	--	1	--	--	1
TOTALS		--	3	--	--	3
Humanities	English	8	5	--	--	13
	Ger.-Rus.	8	--	--	--	8
	History	--	2	--	--	2
	Philosophy	7	2	--	--	9
	Rom. Lang.	10	3	--	--	13
TOTALS		33	12			45
Social Sciences	Economics	--	1	--	--	1
	Government	--	1	--	--	1
	Psychology	2	3	2	--	7
	Soc.-Anthr.	7	3	--	--	10
TOTALS		9	8	2		19
Biological Sciences	Botany	3	1	--	--	4
	Microbiology	2	--	--	--	2
	Zoology	2	1	1	--	4
TOTALS		7	2	1		10
Physical Sciences	Astronomy	--	--	--	--	--
	Chemistry	4	2	1	3	10
	Geol.-Geogr.	5	--	--	--	5
	Physics	3	3	2	2	10
TOTALS		12	5	3	5	25
Math. & Stat.	Mathematics	--	1	1	--	2
	Statistics	--	--	--	--	--
TOTALS			1	1		2
COLLEGE TOTALS		61	31	7	5	104

K. FULBRIGHT AND ROCKEFELLER AWARDS

1. The following faculty from the indicated departments spent the 1964-65 year at the indicated locations:

Name	Rank	Department	Location
P. Gamble	Professor	Economics	Taiwan - Tun Ghai University
W. O'Donnell	Professor	English	Austria - The University of Vienna
M. Ratner	Asst. Prof.	English	Germany - University of Frankfurt
E. Schiffer	Asst. Prof.	Ger.-Rus.	Germany
J. Harris	Com. Prof.	Government	Great Britain[1]
H. Boudreau	Asst. Prof.	Rom. Lang.	Spain (travel grant only)
J.H. Korson	Professor	Sociology	Pakistan - University of Karachi
L. Sussmann	Assoc. Prof.	Sociology	Denmark

2. The following faculty have received Fulbright awards for the 1965-66 year:

B. Morris	Professor	Economics	Iraq
D. Clark	Professor	English	Ireland
H. Gordon	Professor	History	Germany
F. Wickwire	Asst. Prof.	History	England
L. Beth	Professor	Government	Ireland
G. Braunthal	Assoc. Prof.	Government	India
E. Driver	Professor	Sociology	India

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(1) Professor Harris received a Rockefeller Grant.

L. GUGGENHEIM FELLOWSHIPS

Guggenheim Fellowships have been awarded for 1965-66 to the following faculty:

Name	Rank	Department
R. E. Kim	Asst. Prof.	English
J. R. Rowley	Asst. Prof.	Botany
R. T. Wilce	Asst. Prof.	Botany

M. FACULTY GROWTH GRANTS

We are pleased to report that the following grants were awarded to faculty members in this College:

Name	Rank	Department
Andrew Fetler	Asst. Prof.	English
Marilyn Gaull	Lecturer	English
David Porter	Asst. Prof.	English
Milton Cantor	Asst. Prof.	History
Jack Thompson	Asst. Prof.	History
Richard Duval	Asst. Prof.	Romance Languages
Thomas Fraser	Asst. Prof.	Sociology-Anthropology
Terence Burke	Asst. Prof.	Geology-Geography
Robert Melter	Asst. Prof.	Mathematics

N. LIBRARY ALLOCATIONS

In 1962-63 this College received a total of only $25,000 in allocations for library books and periodicals. During 1963-64 this figure was increased to $285,000, and it was reduced somewhat (to $206,500) during 1964-65. Adoption of the All-Books-Current (ABC) plan for 1965-66 should maintain - if not increase - this highly desirable level of support. Library allocations of this magnitude have facilitated faculty recruitment and have served notice on the scholarly world that we know what is required to build a great university. We also report, with approval, the appointment by the Library of a staff member having special competence in the area of fine arts.

O. U./MASS. BOSTON

The following members of our faculty transferred to U. Mass./Boston, effective September 1, 1965:

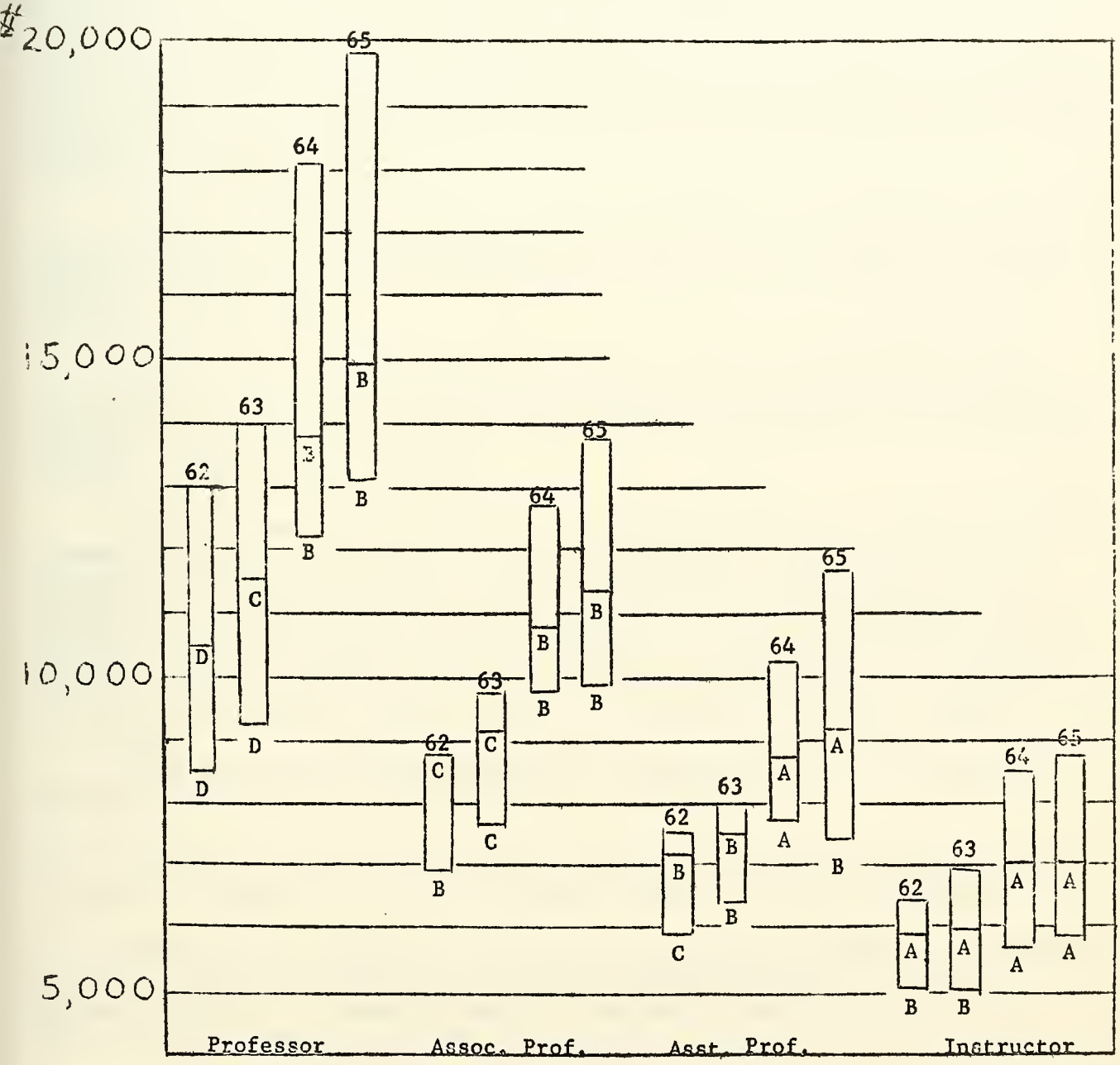
Name	Rank	Department
Charles Knight	Instructor	English
James Sweeney	Asst. Prof.	English
Paul Gagnon	Assoc. Prof.	History
Richard Powers	Assoc. Prof.	History
Frederick Busi	Instructor	Romance Languages
John MacCombie	Asst. Prof.	Romance Languages
Alfonso Azpeitia	Professor	Mathematics

P. FACULTY SALARIES

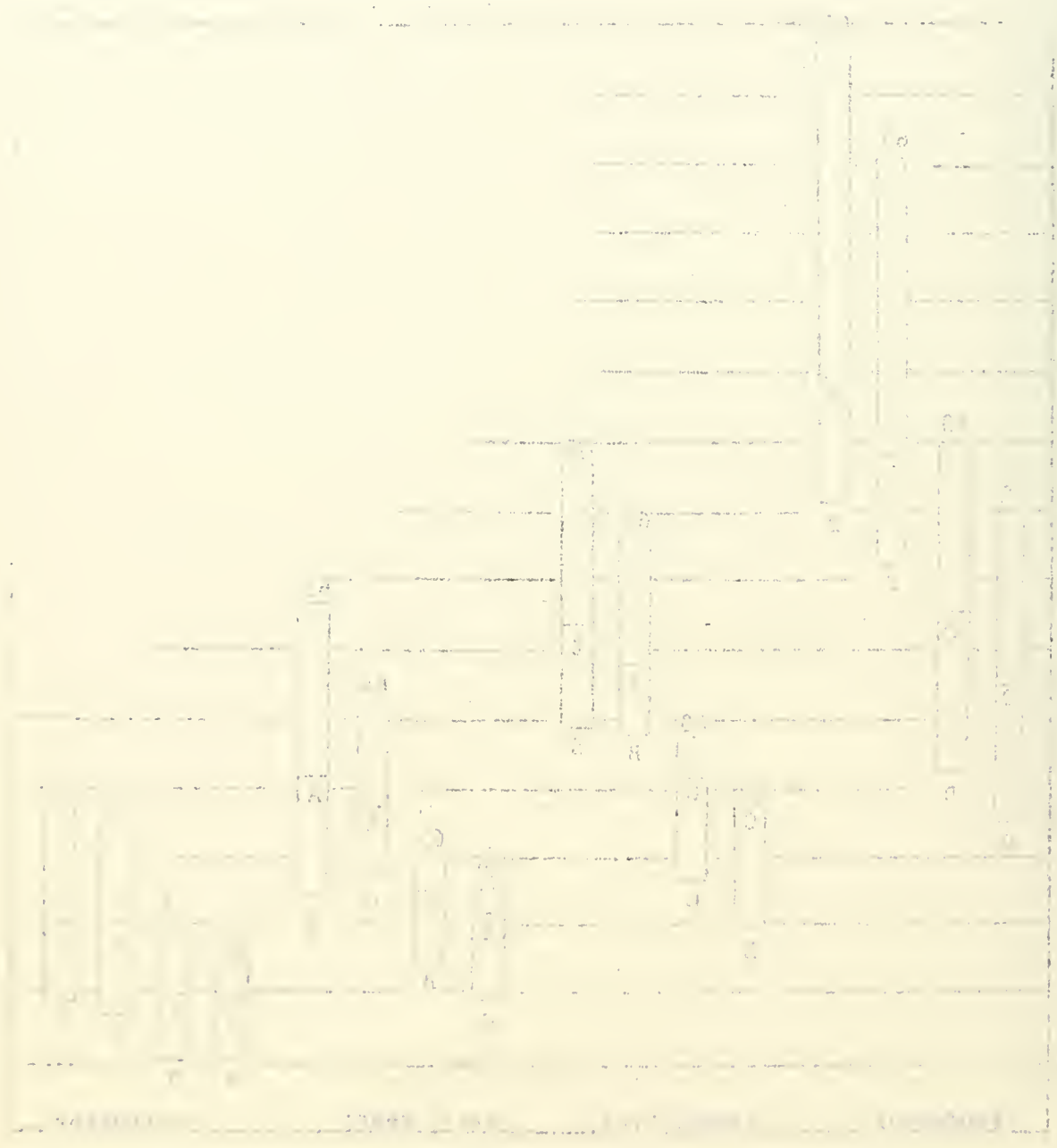
The remarkable progress in improving faculty salaries in this College during the past four years is graphically summarized on the next page.

FACULTY SALARY RANGES (1962-1965)

COLLEGE OF ARTS AND SCIENCES



Legend: Salaries are those actually paid in March of the indicated years. Letters (A, B, C, D) indicate A.A.U.P. ratings for average (within the bar) and minimum (below the bar) salaries. In 1962, the average salary and the maximum salary for associate professors were the same.



Q. MISCELLANEOUS ACCOMPLISHMENTS AND SPECIAL PROGRAMS

A University Youth Orchestra has been established by the Music Department as a training ground for high school students in this area. The Music Department was host to the Massachusetts Music Education Association and All State Music Conference on April 8 - 10. Professor Jenkins demonstrated great organizational ability in taking charge of this event. Both the University Symphony Orchestra and Concert Band continued their outstanding performances. Special kudos are deserved by Messrs. Steele and Jenkins, respectively. Both student and faculty music recitals were of a quality unprecedented on this campus. The Music Department acquired, during the past year, 7 practice pianos and will have 2 more grand pianos by September, 1965.

The University Theater put on 5 major productions involving 225 students. The total attendance at these performances was 3700 people. The Summer Theater program - initiated this month - is an integral part of the University's Summer Festival of the Fine Arts.

The Art Acquisition program has obtained an additional 40 works of art, largely through grants from the American Federation of Arts and from the University's Research Council. The Art Department sponsored a number of one-man and group exhibitions of art in various media.

During the past year the History and English Departments jointly sponsored a meeting of their faculty members with their counterparts from the Community Colleges of the Commonwealth. A member of the English staff organized the Western Massachusetts English Council, primarily composed of secondary school teachers. The History Department again sponsored a conference for high school history teachers, attended by about 150. Professor Goding (Romance Languages) again conducted an NDEA Summer Institute for teachers at Arcachon, France.

Professor H. Lee Varley (English) has completed one year of service as the first Master of the Orchard Hill Residential College.

The Child Guidance Center (Psychology) has completed its first full year of operation in conjunction with our graduate program in Clinical Psychology.

Begun in May, 1964 and concluded in May, 1965, the Program on Professional Persons Overseas (supported by the Ford Foundation) brought a number of eminent speakers to our campus through the efforts of Professors King, Driver, Fraser (all of Sociology) and Morris (Economics).

During the spring semester former Governor John Anderson (of Kansas) served as Distinguished Professor of Public Affairs, a position made possible by a grant from the Ford Foundation.

The Botany Department has continued to sponsor the NSF College Teachers Summer Research Participation Program (directed by Professor E. L. Davis).

R. FACULTY RECRUITMENT (as of July 15, 1965)

Of the 100 new faculty positions allocated to this College for September, 1965, 85 have been filled. In addition, 54 1/2 replacement positions have been filled by new faculty appointed for September, 1965. These "old", or existing, positions became vacant because of resignations, terminations, or retirements, or were available by virtue of not having been filled during 1964-65. Also included in the above total of replacement positions are replacements for faculty on leaves of absence (sabbatical or otherwise) during 1965-66. Thus, the most valid measure of our recruiting effort is obtained by adding the above two totals:
85 + 54 1/2 = 139 1/2* positions filled by new faculty. These positions (new and replacement) are broken down by rank in TABLE K and by division and department in TABLE L.

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* It should be noted that this number is equal to the number of F.T.E. new faculty for September, 1965. The number of new faculty faces would be somewhat larger.

TABLE K: POSITIONS FILLED BY RANK AND BY TYPE

Rank	New	Replacement	Total
Professor	10	4	14
Associate Professor	15	4	19
Assistant Professor	39	15	54
Instructor	21	31 1/2	52 1/2
TOTALS	85	54 1/2	139 1/2

TABLE L: POSITIONS FILLED BY DIVISION, RANK, AND DEPARTMENT*

Division	Department	New	Replacement	Total
FINE & PERF. ARTS	Art	4(1-0-2-1)	3(0-0-0-3)	7(1-0-2-4)
	Music	2(0-1-1-0)	0	2(0-1-1-0)
	Speech	2(0-0-0-2)	2(0-1-0-1)	4(0-1-0-3)
TOTALS		8(1-1-3-3)	5(0-1-0-4)	13(1-2-3-7)
HUMANITIES	English	10(1-2-4-3)	7(0-1-1-5)	17(1-3-5-8)
	Ger.-Rus.	1(0-0-1-0)	3(0-0-0-3)	4(0-0-1-3)
	History	7(2-0-2-3)	9(0-0-3-6)	16(2-0-5-9)
	Philosophy	1(1-0-0-0)	1(0-0-0-1)	2(1-0-0-1)
	Rom. Lang.	7(1-1-1-4)	8(0-1-1-6)	15(1-2-2-10)
TOTALS		26(5-3-8-10)	28(0-2-5-21)	54(5-5-13-31)
SOCIAL SCIENCES	Economics	4(1-0-2-1)	3(0-0-1-2)	7(1-0-3-3)
	Government	6(0-0-5-1)	1(1-0-0-0)	7(1-0-5-1)
	Psychology	6(0-1-5-0)	1(1-0-0-0)	7(1-1-5-0)
	Soc.-Anth.	3(0-0-3-0)	1(0-0-1-0)	4(0-0-4-0)
TOTALS		19(1-1-15-2)	6(2-0-2-2)	25(3-1-17-4)
BIOLOGICAL SCIENCES	Botany	3(0-1-1-1)	0	3(0-1-1-1)
	Microbiol.	2(0-0-2-0)	0	2(0-0-2-0)
	Zoology	5(0-0-2-3)	0	5(0-0-2-3)
TOTALS		10(0-1-5-4)	0	10(0-1-5-4)

*Expressions like 7(2-0-1-4) represent a total of 7 faculty positions distributed as follows: 2 Full Professors, 0 Associate Professors, 1 Assistant Professor, and 4 Instructors. Similarly, 25(5-4-12-4) and 75(15-12-35-13) have obvious meanings.

TABLE L: POSITIONS FILLED BY DIVISION, RANK, AND DEPARTMENT*

Division	Department	New	Replacement	Total
PHYSICAL SCIENCES	Astronomy	1(0-1-0-0)	0	1(0-1-0-0)
	Chemistry	4(0-0-3-1)	0	4(0-0-3-1)
	Geol.-Geog.	1(0-1-0-0)	0	1(0-1-0-0)
	Physics	7(0-4-3-0)	2(0-0-2-0)	9(0-4-5-0)
TOTALS		13(0-6-6-1)	2(0-0-2-0)	15(0-6-8-1)
MATHEMATICS & STAT.	Mathematics	9(3-3-2-1)	13(2-1-6-4)	22(5-4-8-5)
	Statistics	0	0	0
TOTALS		9(3-3-2-1)	13(2-1-6-4)	22(5-4-8-5)
CHINESE		0	½(0-0-0-½)	½(0-0-0-½)
COLLEGE TOTALS		85(10-15-39-21)	54½(4-4-15-31½)	139½(14-19-54-52½)

VII. FUTURE PLANS AND NEEDS

A. GENERAL CONSIDERATIONS

Central to all future plans is our desire to do everything possible to insure that the University of Massachusetts move into the front rank of American institutions of higher learning at the earliest possible date. As we strive toward this goal, I hope we shall acquire unique distinction among the many "developing" universities because of our continued insistence on the improvement of undergraduate teaching. In this College we plan to make clear by our actions that good undergraduate teaching and academic counseling of students is both highly regarded and well rewarded. We will be indebted to any part of the University which calls our attention to areas needing improvement.

As mentioned in our budget document for FY 1967, the most basic need of our College is to have the existing autonomy legislation extended (a) to include the academic building program, (b) to eliminate maxima on faculty salaries, and (c) to include non-professional (secretarial and technical) personnel. In addition, the on-campus procedure for determining priorities in the capital outlay program needs drastic and immediate improvement. It is also essential for us to eliminate campus-generated red-tape (for example, certain rules governing our purchasing policy) that prevents us from reaping the maximum educational value from the existing autonomy legislation. In this connection, the faculty board to advise on purchasing policy - which was approved by the Board of Trustees on August 2, 1962 - should be activated at the earliest possible moment. A College as large as ours also should have freedom - within precisely defined limits - to transfer money from one account to the other. This might be accomplished by requesting such permission from the Trustees at the time the budget for a given year is approved. For example, advance permission to transfer from one account to another up to 10% of the allocated funds would be extremely desirable. I cannot see that such a policy would violate either the letter or the spirit of existing autonomy legislation.

B. PERSONNEL

(1) Because of increasing shortages of qualified faculty, it is imperative that a substantial portion of the new faculty positions be allocated no later than the start of the fall semester. The availability of multiple-year contracts for non-tenure faculty would do much to improve the "image" of this University in the better academic circles and would save the very large number of man-hours presently invested in processing unnecessary reappointment papers. For highly recommended new faculty two three-year contracts prior to tenure would be ideal. For others, three two-year contracts would be useful; one-year contracts should remain available for use whenever they are warrented. The ability to pay moving expenses for new faculty members is needed desperately. I favor taking this money from the salary budget for new positions. This would cause no hardship because higher starting salaries must be paid when moving expenses cannot be paid. A "Set 'em up in Business" Fund will be necessary if we are to have a fighting chance to attract truly outstanding faculty to this campus. Such a fund would be used for equipment, supplies, library books, special travel allocations, research assistance, etc. according to the needs of the individuals being appointed. This past year was the first year in which our College had sufficient 03 funds to conduct truly nationwide searches for faculty. It is imperative that this level of support be continued.

(2) Even if all the requirements specified in the preceding paragraph are granted, I still believe that some imaginative new dimension must be added to our recruitment process if we are to constantly improve the quality of our new faculty appointments while maintaining (or increasing) the rate of recruitment accomplished during the past year. Perhaps outstanding graduate schools should be visited early in the year with the hope of "getting a line on" the most outstanding people who soon will be completing their Ph.D. work in a large variety of fields. Perhaps more outside consultants should be used more intensively, particularly with respect to senior faculty appointments.

(3) The greatest personnel need of our College is for more senior faculty who have had extensive experience in training Ph.D. students at first-rate institutions. For example, we need senior faculty in Spanish, Quantitative Economics, Psychology, English, Comparative Literature, Inorganic Chemistry, Anthropology (Archeology), Microbiology, Statistics, Mathematics, Physics, and Botany, and this list is by no means exhaustive. In this connection, it is imperative that present salary maxima be eliminated - either partially or completely. In a very few years, salaries of $30,000 will be as common as salaries of $20,000 are at present. It is regrettable that currently we rate only "C" on the AAUP scale, both with respect to average and minimum faculty compensation.

(4) "The 15:1 ratio for budgeting new faculty positions should be reduced, at least to 13:1."* It should be noted that, as of September, 1964, our College's student-to-faculty ratio was 18.8, an unacceptably high figure.

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* Repeated from last year's Annual Report, p.23.

(5) A request to create a separate Department of Biochemistry is on file in the Provost's Office. In locating a Head for this Department I look forward to receiving advice from the three Biology departments, the Chemistry department, and the Medical School. I do hope a competent person can be located for September of 1966.

(6) A request to create a separate Department of Russian (or Slavic) studies will be filed as soon as a suitable Head of Department can be located. However, the filling of the Headships in Economics, German, Speech, and Philosophy must receive higher priority.

(7) For the fourth consecutive year I am repeating my request for funds to reimburse Department Heads (or faculty designated by them) for administering their departments during the summer. This is essential if we are to increase our summer offerings and if we are to create a proper academic atmosphere in the summer.

(8) For the first time in the history of this College, funds for graduate teaching assistants for the coming year were adequate. This highly commendable result was achieved by receipt of a larger allocation from the Provost's Office coupled with our own allocation of leave-of-absence funds for teaching assistants. The 40 University fellowships (for 1965-66) constitute another major step in the right direction. To make University funds available for research assistants, particularly in the non-sciences, would be a fitting climax to the above-mentioned improvements.

(9) The annual report of virtually every department in this College has emphasized the need for additional secretarial positions. Virtually every science department also has emphasized its need for additional technical positions. For several years I have urged the University to allocate non-professional positions among the several schools and colleges on the basis of a ratio determined in consultation with the various Deans and based on the number and type of faculty positions in each administrative unit. Separate ratios are needed for secretarial positions and for non-secretarial (technical) positions. In addition, the University sorely needs to develop acceptable criteria for allocating the higher-ranking non-professional positions. Outside, impartial consultants should be asked to evaluate the University's utilization of non-professional personnel and to make recommendations for improvement. Such a study might well require an entire year in which the consultants would work full time on this campus. It is my considered opinion that substantial improvement in the University's utilization of non-professional personnel should be made prior to asking for an extension of autonomy legislation to cover this area.

I am weary of repeating the well-known fact that our larger departments are complex educational units, whose activities are larger in quantity and broader in scope than those of many other schools and colleges on this campus. I was

disgusted to learn recently that the newly-formed Labor Relations and Research Center is being launched with a Principal Clerk, whereas the entire College of Arts and Sciences presently has only one Principal Clerk (which was assigned last year after years of pleading)!! Furthermore, this position apparently was assigned to the Center nearly a full year in advance of the appointment of a Director. Certainly this represents an unconscionable assessment of priorities within the University.

In my five years on this campus I have never seen the manning table of the University with respect to non-professional positions. Neither have I seen a comparison of FP/SP ratios* for the various academic units. If my budget requests can be shown to require a disproportionate number of non-professional positions, I shall be happy to review them.

In the meantime, I call attention to recent history, as it is summarized in Section III B (particularly TABLES 4, 5, and 6) of this report. Between September 1962 and September 1964 our College filled 89 new faculty positions. For September 1965, another 85 new faculty positions have been filled. What is more important, our new faculty require more secretarial help than our older faculty because the former usually are more oriented toward research, scholarly, and creative (RSC) work. The dramatic increase in both the magnitude and the scope of our recruitment effort in itself requires additional secretarial help, particularly since we now are conducting truly nation-wide searches for faculty. Despite these facts, between September 1962 and September 1964 our FP/SP ratio declined only slightly (from 8.5 to 7.9). I maintain that this ratio should be 5 and that new secretarial positions should be assigned on the basis of a FP/SP ratio of 4.0 at least for the next few years.

Between September 1962 and September 1964 our College received a total of 4 technical positions to go along with its 89 new faculty positions! For this period the University assigned us 1 new technical position for each 22 new faculty positions!! For this reason, our College's FP/TP** ratio climbed from 12.7 in 1962 to 14.2 in 1964!!! While we are all in the process of endeavoring to determine a realistic FP/TP ratio, I suggest that new technical positions be allotted on the basis of a 10:1 ratio for the next few years.

Twenty-two of our present 26 technical positions are divided among 6 science departments (including Psychology). Between September 1962 and September 1964 these 6 departments received only 2 new technical positions even though the total faculty in these departments increased by 21 (from 78 to 99) during the same period. During 1964-65 these same six departments had outside research grants and contracts which brought to the University more than a quarter of million dollars per year in overhead. I can think of no better argument to justify my recent budget requests in this category. I am hoping for a breakthrough in FY 1966, since new and rapidly developing Ph.D. programs in the sciences will make unprecedented demands for technical help. Such help is essential is we are to gain the maximum

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* Ratio of faculty to secretar al positions.

** Ratio of faculty to technical positions.

educational benefit from the faculty we have tried so hard to recruit and to retain.

(10) Closely tied to our need for more non-professional personnel is our need for non-teaching professional personnel, in particular staff assistants and staff associates. Such positions are especially needed in our science departments and in our larger non-science departments so that department heads and faculty may be relieved of more routine administrative and technical chores. As faculty salaries improve, it becomes increasingly uneconomical to have faculty perform chores that less highly-trained persons can do equally well, if not better.

(11) We still have not appointed a Coordinator of Non-Western Studies, but we are hoping to do so for September 1966. We also hope to make a senior appointment in Comparative Literature.

(12) During the coming year I plan to recommend that Statistics be incorporated with Mathematics into a Department of Mathematics and Statistics.

(13) During the coming year Professor Gluckstern has agreed to endeavor to recruit at least one senior astronomer for our staff. We also plan to set up long-range objectives for our own effort in Astronomy since the Four-College Department seems to be in limbo at least temporarily. We look forward to eventual development of Ph.D. work in Astronomy, with or without the help of the other Colleges. An astronomy group oriented toward radio astronomy and astrophysics might well constitute a very desirable addition to our developing Physics Department and well might make its permanent home there.

C. FACILITIES (See also pp. 1 and 23-24 of my Budget Document for FY 1967; pp. 25-27 of last year's Annual Report)

In Section VII.A of this report I emphasized the pressing need to have autonomy extended to include the academic building program. The appropriate legislation should be submitted to the next session of the General Court.

At present, our enrollment is determined by the availability of dormitories rather than by the availability of academic buildings. It is bitterly ironic to observe that dormitories are able to be completed much more quickly than academic buildings for at least two reasons:

(a) Dormitories are built by the U. Mass. Building Authority and hence are not subject to the irresponsible red tape and intolerable delays of the BBC.

(b) Dormitories contain repeated units of a standard type, whereas academic, and particularly science, buildings contain many highly - specialized features.

Case histories of only two current projects of the BBC - namely, Section IV of the Morrill Science Center and the renovation of Goessmann Laboratory - would afford abundant evidence of the need for autonomy. Some 5 years ago planning for the Goessmann renovation began, but only this month did the actual work begin - even though a sizeable government grant had been available for a matter of years! Five years ago, planning for Section IV of Morrill was well along. It is extremely doubtful - despite repeated promises - that Section IV will be ready for occupancy by September of 1965! Since our February 1965 "walk-through" meeting in Section IV, it has become glaringly obvious to me that this University has no power even to expedite a building project controlled by BBC. The conclusion is inescapable that BBC has the authority with respect to our academic building programs, while the University has the responsibility for the academic program. This authority and this responsibility must both rest with the University if we are to continue to accommodate enrollment increases of 1500 students per year. While a relatively static University might be able to put up with BBC and its delays, a rapidly expanding University cannot do so and still fulfill its commitment to the people of this Commonwealth.

The chart on the next page presents official enrollment data for the University and its various subdivisions for the period 1955-64. Below are tabulated the enrollment increases for each triennium between September 1955 and September 1964:

Triennium	Enrollment Increase
1955-1958	930
1958-1961	1747
1961-1964	3497

COMPARATIVE ENROLLMENTS 1955-64

Enrollment by Classes:

SEPTEMBER	55	56	57	58	59	60	61	62	63	64
University Total	4341	4516	4791	5271	6131	6495	7018	7676	8811	10497
Freshmen	1088	1148	1266	1366	1838	1725	1918	1922	2286	2592
Sophomore	899	924	1016	1126	1149	1518	1463	1651	1727	2135
Junior	897	823	879	914	994	1018	1323	1350	1648	1781
Senior	744	898	830	861	874	996	980	1217	1221	1469
4-Yr Undergrad.	3628	3793	3991	4267	4855	5257	5684	6140	6882	7977
Stockbridge	338	333	331	348	395	396	394	451	454	484
Graduate	337	353	430	568	780	768	845	975	1303	1846
Special	38	37	39	88	101	74	96	110	172	190
Undergrad. Total	3628	3793	3991	4267	4855	5257	5684	6140	6882	7977
Arts & Sciences	1721	1815	1759	2043	2472	2814	3116	3439	3976	4647
Public Health									62	104
Education			231	274	331	377	426	448	485	607
Engineering	792	904	967	878	849	843	836	834	847	898
Business Adm.	506	498	501	507	550	488	502	544	602	678
Agriculture	324	297	268	277	274	313	341	361	345	395
Home Economics	183	150	132	122	130	115	114	137	178	194
Physical Education	65	78	77	98	103	105	244	263	242	278
Nursing	37	51	56	68	96	112	102	114	145	176

COMPARATIVE ENROLLMENTS 1955-64 (By Percentages)

Enrollment by Classes: SEPTEMBER	55	56	57	58	59	60	61	62	63	64
University Total	4341	4516	4791	5271	6131	6495	7018	7676	8811	10497
Freshmen	25.0	25.4	26.5	25.9	30.0	26.6	27.3	25.0	25.9	24.7
Sophomore	20.7	20.5	21.1	2.14	18.7	23.4	20.8	21.5	19.6	20.3
Junior	20.7	18.2	18.4	17.3	16.2	15.7	18.9	17.6	18.7	17.0
Senior	17.1	19.9	17.4	16.4	14.3	15.3	14.0	15.9	13.9	14.0
4 Yr Undergraduate	83.5	84.0	83.4	81.0	79.2	81.0	81.0	80.0	78.1	76.0
Stockbridge	7.8	7.4	6.8	6.6	6.5	6.1	5.6	5.9	5.15	4.6
Graduate	7.8	7.8	9.0	10.8	12.7	11.8	12.0	12.7	14.8	17.6
Special	.9	.8	.8	1.6	1.6	1.1	1.4	1.4	1.95	1.8
Undergraduate Total	3628	3793	3991	4267	4855	5257	5684	6140	6882	7977
Arts & Sciences	47.5	47.8	44.1	47.8	50.9	53.5	54.8	56.0	57.8	58.2
Public Health									.9	1.3
Education			5.8	6.4	6.8	7.2	7.5	7.3	7.1	7.6
Engineering	21.8	23.8	24.2	20.6	17.5	16.1	14.7	13.6	12.3	11.3
Business Adm.	14.0	13.2	12.6	11.9	11.3	9.3	8.9	8.9	8.7	8.5
Agriculture	8.9	7.8	6.7	6.5	5.6	6.0	6.0	5.9	5.0	5.0
Home Economics	5.0	4.0	3.3	2.9	2.7	2.2	2.0	2.2	2.6	2.4
Physical Education	1.8	2.1	1.9	2.3	3.2	3.7	4.3	4.3	3.5	3.5
Nursing	1.0	1.3	1.4	1.6	2.0	2.1	1.8	1.9	2.1	2.2

It is apparent that the enrollment increase between 1961 and 1964 was nearly 4 times greater than between 1958 and 1961! Since 12,000 students are expected in September of 1965, the University will have doubled in size in six years, i.e. since September, 1959. Hopefully, our future expansion will not exceed 1500 students per year.

Our recent history demonstrates that about five years elapse between the start of planning and the actual occupancy of a new building. For our College, a rule of thumb seems to exist which states that it is necessary to start planning for an addition to Building A as soon as Building A is occupied.

In recent years actual enrollments always have exceeded estimated enrollments, and long range estimates have been particularly unreliable. Hence, it is easy to see why many departments in our College (which is responsible for 75% of the total teaching effort of the University) have exhausted their space. For at least two more years the situation will become progressively worse, and more departments will have to be fragmented with respect to physical location.

For the past two years our College has taken a terrible beating on capital outlay. This cannot continue. The coming year (1965-66) is critical. Either we get approval for the needed academic buildings or the anticipated enrollment increases cannot be accommodated. Our on-campus method for determining priorities in capital outlay requests must be drastically improved.

This past year our College was not even consulted prior to submission to the General Court of the University's capital outlay request for FY 1966! Imagine our surprise (and resentment) when we learned that construction funds for the West addition to Bartlett Hall and planning funds for Section V of Morrill Science Center were not even requested by the University. To this date not even an explanation has been offered. I fail to understand why items such as planning money for the Continuing Education Center should take precedence over either of the preceding buildings. My advice concerning the Graduate Research Center has been overruled so completely that it would be a waste of time to comment further on this project. To make matters worse, the University requested funds for the auditorium addition to Machmer Hall in FY 1965 and requested funds for the office addition to Machmer Hall in FY 1966, this being an exact reversal of priorities for which we had begged. As a result, at least one year of precious time has been lost, and many of our faculty will have to occupy makeshift offices for an additional year.

For more than a year we have asked for approval of the general concept of moving Geology from Morrill Hall to new quarters, presumably in the Graduate Research Center. Although a decision on this matter is urgently needed, it has not been forthcoming. We have asked for permission to establish a Faculty Committee to plan Section V of Morrill Hall, but no reply has been received. During the past year we repeatedly recommended that Psychology move out of Bartlett when the

West addition is completed, but this recommendation has been overruled. Even at this late date we are still awaiting word on the extent to which Section IV of Morrill will be ready for occupancy in September of this year. In the meantime, specifications for the constant temperature rooms in Section IV continue to be rewritten and continue to contain unnecessary features which the faculty have not requested.

All in all, it would be difficult to imagine a more unsatisfactory situation with respect to capital outlay. It is my considered opinion that academic considerations have been relegated to virtual insignificance in the on-campus assessment of priorities for capital outlay, the chief reason being that the officials who make final decisions on campus do not choose to consult with us before making decisions which affect us. Ever since its initiation some five years ago, the Master Planning Committee has been ineffective. Enlargement of the membership has proven to be only an empty gesture in the direction of more consultation. Unless the attitude of the decision - making officials is changed, I foresee little improvement even when the Committee begins to function next year under the system recently passed by the Faculty Senate. At the very least, we can hope that the Committee will have a new Chairman. Minor requests such as fraternity building problems, permits to construct signs, and other similar matters should not be permitted to occupy the time of this Committee, even though these matters are about the only ones on which the Committee has exerted any appreciable effect in the past.

On the brighter side, I can only commend the appointment by the Provost of a person whose full-time duties concern utilization of existing space and planning for future construction.

Without the decision to convert excess classrooms into temporary offices, recruitment of competent faculty during the past year would have been impossible. However, these offices should be returned to classroom use eventually, as should the offices in Machmer presently occupied by Dean Field and his staff.

Additional faculty offices also will be required for September 1966, and I hope that more suitable space than the County Circle Dorms can be provided for a major portion of the new faculty. Some of our largest departments (for example, History) presently have their faculty split among Bartlett Hall, Machmer Hall, and The Abbey. This is a most unsatisfactory arrangement, and it makes it difficult for the department head to maintain proper contact with his faculty.

In addition to the matters mentioned earlier, the following are representative of the decisions which should be made during the coming year:

(a) How can South College best be used when its present occupants leave? What kinds of modification will be necessary?

(b) Should Clark Hall be renovated and incorporated into Section V of Morrill Hall? Should the present Faculty Club building be moved to another location to make room for Section V?

(c) We would like approval of our plan to renovate Old Chapel for use as Administrative Offices of this College as soon as the Fine Arts Building is occupied.

(d) An "Expediter" for each building project would be very desirable if such a person could be given some real authority. Such a person would concentrate on a given project from the initial planning through occupancy and would endeavor to eliminate delays at all stages.

(e) Would it be feasible to ask BBC to open an office in Amherst? Should BBC be represented on our Master Planning Committee?

(f) Should the Master Planning Committee or a small Subcommittee thereof work more closely with the Trustee Committee on Buildings and Grounds?

Since my recent budget request contained a clear statement of this College's building needs for this year and next, this statement will not be repeated here.

D. EQUIPMENT (AND SUPPLIES)

Section VII B. 1 of this report mentions the need for a "Set 'Em Up in Business Fund" to be used for purchase of equipment and other materials needed by new faculty, particularly in the sciences. This absolutely essential fund should be at least $250,000 for our College along ($10,000 for each of 25 new faculty).

I would hope that the legislature would approve, in each year's capital outlay budget, a substantial sum of money (perhaps $500,000) for equipment since our total equipment needs are much larger than the amounts of money we receive in Account 15. For example, the Chemistry stockroom should be allocated $100,000 for each of at least two successive years to enable it to build up a stock of equipment and supplies commensurate with the department's heavy involvement in both undergraduate and graduate work. Our developing Physics Department will need substantial "seed" money for equipment for each of at least the next 5 years. I feel certain that this "seed" money will enable our new staff to obtain sizeable research grants that otherwise would not have been possible. Our present ties with the Brookhaven National Laboratory could not have developed without this past year's special allocation of $100,000.

During the past year the University made available to the Physics Department all except the last $27,000 of the equipment money promised in connection with the recently occupied new addition to Hasbrouck. Of the $1,381,000 of equipment money for Section IV of Morrill, the University has made available $727,894 up to the present. It is essential that the remaining $654,106 be made available prior to January 1, 1966 to insure full use of the building by September of 1966.

For the past 5 years I have requested new Travelall (or other heavy duty) vehicles for Geology field trips. As far as I know, these requests have never even been specified in the University's budget to the legislature. (Some system also is needed to enable professors to drive these vehicles with suitable insurance protection. Several years ago I was told such a system soon would be available.)

Money needed for repair of equipment will have to increase at roughly the same rate as our total equipment inventory increases.

"The University should acquire a stock of basic office equipment (desks, chairs, file cabinets, bookshelves, typewriters, etc.) which can be requisitioned on short notice by departments which have appointed new staff. Much money can be saved by purchasing large quantities of such common items of equipment."*

---

* Repeated from p. 28 of last year's Annual Report.

E. MISCELLANEOUS

(1) Library

The most heartening development of the past year has been the announcement of the University's intention to acquire a library of 1 million volumes at the earliest possible date and hopefully by 1970. Entirely consistent with this intention has been the insertion of a new library building as Item # 1 in the capital outlay request now before the legislature. To all persons responsible for eliminating the backlog of uncataloged books we say: "Well Done!" I plan to make maximum use of these developments in recruiting faculty next year. One year ago many of our present faculty had serious doubts about the University's commitment to build a good library. These doubts have been replaced by real optimism for the future.

Professor Strother has stated emphatically that the Mathematics library, which is used by no other department of the University, should continue to be located wherever the Mathematics faculty is housed and should not be incorporated into the contemplated Physical Sciences Area Library. I intend to support Professor Strother in this matter.

(2) New Music Programs

During 1965-66 the Music Department plans to submit programs for a Bachelor of Music Degree and for a Master of Arts in Music.

(3) New Summer Programs

The History Department is planning to institute a summer program in Bologna, Italy. The English Department similarly is working toward a summer program at Oxford University in England. This same department is considering the establishment of Summer Institutes for Disadvantaged Students and for Teachers of English in Public Schools.

(4) Administration of the College

After much discussion with department heads and faculty, we have decided (for the second time) not to request the breakdown of our College into subject-matter Divisions, each of which unit would have reported to an Associate Dean. However, we do anticipate requesting additional Assistant or Associate Deans each of whose duties will involve responsibility for certain College-wide programs and activities.

Certain of our larger departments already have a reasonably well-specified divisional structure. For example, the Chemistry Department operates via divisions of physical chemistry, organic chemistry, etc. The Romance Languages Department also has an Associate Head for French and an Associate Head for Spanish. The English Department is considering a similar breakdown into

sub-departments. A principal advantage would be that , for example, a sub-head for The Novel could get to know each of his staff far better than the Head of De partment presently can. The overall Head's duties, under such a system, would correspond to that of a Dean of English. The English Department in September 1965 will have some 65 F.T.E. faculty; by 1970 this figure will be well in excess of 100. I believe some such breakdown into sub-departments is essential if the faculty are to feel that personnel recommendations emanate from persons who know the individual faculty members well. In order to increase communication between the Head and the faculty the English Department publishes a weekly Departmental Newsletter, as well as extensive minutes of departmental meetings. I regard these developments as highly commendable. Other large departments could imitate them with profit.

(5) Summer School

Dean Wagner and I are working on a proposal concerning a fundamental reorganization of the U. Mass. Summer School. We hope to have this ready for formal submission by the end of the summer. Central to this proposal is the belief that a single 12-week summer session would be much superior to two shorter sessions, particularly for the "preemie" freshmen. Funding of summer school should be from 01 rather than 03 funds, and everything possible should be done to make certain that summer school becomes a full-time activity for part of our faculty. We have no intention of changing the volunteer aspect of faculty service during the summer, and we believe that most faculty will not volunteer for more than six weeks of service. We hope to submit a proposal which can form the basis for extended consultation with the faculty and which, when modified suitably, can be submitted for approval by the Faculty Senate. We believe that this proposal could do much to publicize the fact that we presently are on year-round operation, but on a reduced scale during the summer. I personally am convinced of the fact that our society is not yet ready for - and will not accept - full-scale year-round operation.

(6) Liaison with a Negro College

A group of this College's faculty recommended that we institute a faculty exchange with Atlanta University in September of 1965. On April 22, 1965 the Faculty Senate gave its approval to this recommendation. Another faculty group has recommended a similar exchange with the University of the West Indies as soon as possible. Since both of these recommendations would implement one section of the report of our College's Danforth Workshop Team, I hope it will be possible to take action by September 1966 on both of these recommendations. Student exchanges undoubtedly would be the next step after faculty exchanges.

(7) Medical School

In last year's report (p.29) we said: "Our College is anxious to do everything possible to cooperate with the new Medical School, which we sincerely hope will be located on the Amherst campus." As this report goes to press, we are still

hoping that the Board of Trustees will reconsider its unfortunate decision of June 11 to locate the Medical School in Worcester and will place the Medical School on the University campus. Such an action by the Trustees will make possible the development, by the University of Massachusetts, of what has been aptly designated as "the critical academic mass" in the shortest possible time.

(8) Potpourri

The Psychology Department has recommended that the Institute of Environmental Psychophysiology be discontinued, and I intend to support this recommendation. The Botany Department is working on a plan for "open-labs" in intermediate and advanced courses. It is my contention that Debating is an academic activity and therefore should not be financially dependent on the Student Senate. Hopefully, Debating could be included under the Hicks' recommendations concerning a drastically reorganized Fine Arts Council.

F. CONCLUDING REMARKS

This past year has been the most heartening of my five years at this University. Many of the best faculty in this College have, of their own free will, echoed these sentiments in my presence. The reason behind this greatly improved morale is crystal clear and perfectly easy to pinpoint. Our new Provost - who, like L.B.J., is a "real professional" - has taken this campus by an academic storm which is certain not to subside for many years to come. He has given sharp operational focus to what had formerly been only vaguely conceived aspirations for academic excellence. Above all, he has earned the total respect of the entire faculty because of his absolute integrity and his implacable devotion to quality higher education. It is a real privilege to work with him.

DEPARTMENT OF AIR SCIENCE
AFROTC DETACHMENT #370 (AU)
United States Air Force
University of Massachusetts
Amherst, Massachusetts

1 June 1965

ANNUAL REPORT OF THE DEPARTMENT OF AIR SCIENCE

1. APPROPRIATIONS - by fiscal year (FY)

		FY 63	FY 64	FY 65
03	Services, Non-employees	$ 50.00	$ 100.00	$ 125.00
04	Food for Persons	62.00	37.50	45.00
10	Travel & Automotive Expense	75.00	75.00	315.00
12	Repairs & Alterations	100.00	50.00	50.00
13	Special Supplies & Expenses	150.00	175.00	400.00
14	Office & Administrative Expenses	150.00	150.00	150.00
14-1	Telephone		550.00	1300.00
15-2	Equipment		500.00	500.00
	TOTALS	$587.50	$1,637.50	$2,885.00

2. PERSONNEL - as of September

	1962	1963	1964
Colonel	1	1	0
Lt Colonel	0	1	1
Major	2	2	2
Captain	2	1	2
TSgt	3	3	3
SSgt	2	2	1
Senior Clerk-Stenographer (Grade 7)	1	1	1
Military Property Clerk (Grade 5)	0	0	1
	11	11	11

3. ORGANIZATIONAL CHART - See Attachment #1.

4. STUDENTS OR CLIENTELE

a. Number of Majors -- None

b. Number of students taught -- September

	1962	1963	1964
Air Science 1	592	317	251
Air Science 2	428	148	116
Air Science 3	36	58	41
Air Science 4	21	33	55
TOTALS	1077	556	463

5. FACULTY PUBLICATIONS, RESEARCH GRANTS, RESEARCH PROJECTS, AND OTHER PROFESSIONAL ACTIVITIES -- None.

6. MAJOR ACCOMPLISHMENTS

On 13 October 1964 the President of the United States signed HR 9124, "The ROTC Vitalization Act of 1963." This much needed legislation modernized the "ROTC Act of 1916." Essentially this bill provides for:

a. Uniform authority to all of the Military Departments for the operation of both high school and college ROTC programs.

b. Statutory authority for the operation of a highly competitive two-year ROTC program along with the standard four-year ROTC program. The two-year program provides for the student to enter AFROTC in his junior year of college and be commissioned a Second Lieutenant upon graduation.

c. Increased monetary allowances (up to $50.00 per month) for ROTC cadets in the junior and senior years of college.

d. Full financial assistance (scholarship plus stipend) to a small number of students who participate in the four-year program.

In regard to the number of financial assistance grants, this detachment received six. These grants are based on the production of Second Lieutenants over the last five fiscal years. Our program is presently geared to be highly critical of the cadet we accept into the program and to increase the number of these highly motivated cadets, to remain in the program and become commissioned officers. These procedures will eventually increase our number of financial assistance grants.

7. SPECIAL PROJECTS OR PROGRAMS

a. The Arnold Air Society, an honor society for cadets, intensified its operations during this period. As advisers to the area Explorer Clubs of the Boy Scouts of America and the Turners Falls unit of the Civil Air Patrol, they have contributed materially to community relations. Their successful high school visitation program has assisted AFROTC at the University of Massachusetts by bringing to the high school the story of the Air Force as a career.

b. The Angel Flight, a society of young ladies interested in the social aspects of the Air Force, in addition to their campus activities, have been selected to be Area A-1 Headquarters for the Society. Area A-1 includes all of New England.

c. The Flying Redmen Drill Team has continued its program of competitions in the New England-New York area and continued the tradition of competing in the National Cherry Blossom Festival in Washington, D.C.

d. Base visitations are, in reality, field trips designed to familiarize AFROTC cadets with various aspects of the Air Force in its daily routine.

This year cadets were taken to Westover Air Force Base, Massachusetts; L. G. Hanscom Field, Massachusetts; Otis Air Force Base, Massachusetts; McCoy Air Force Base, Orlando, Florida; Andrews Air Force Base, Maryland; and Stewart Air Force Base, New York.

e. The Glee Club, organized last year, has grown in size and prestige. In addition to campus appearances it has appeared at Otis Air Force Base and it now has the experience of a TV appearance.

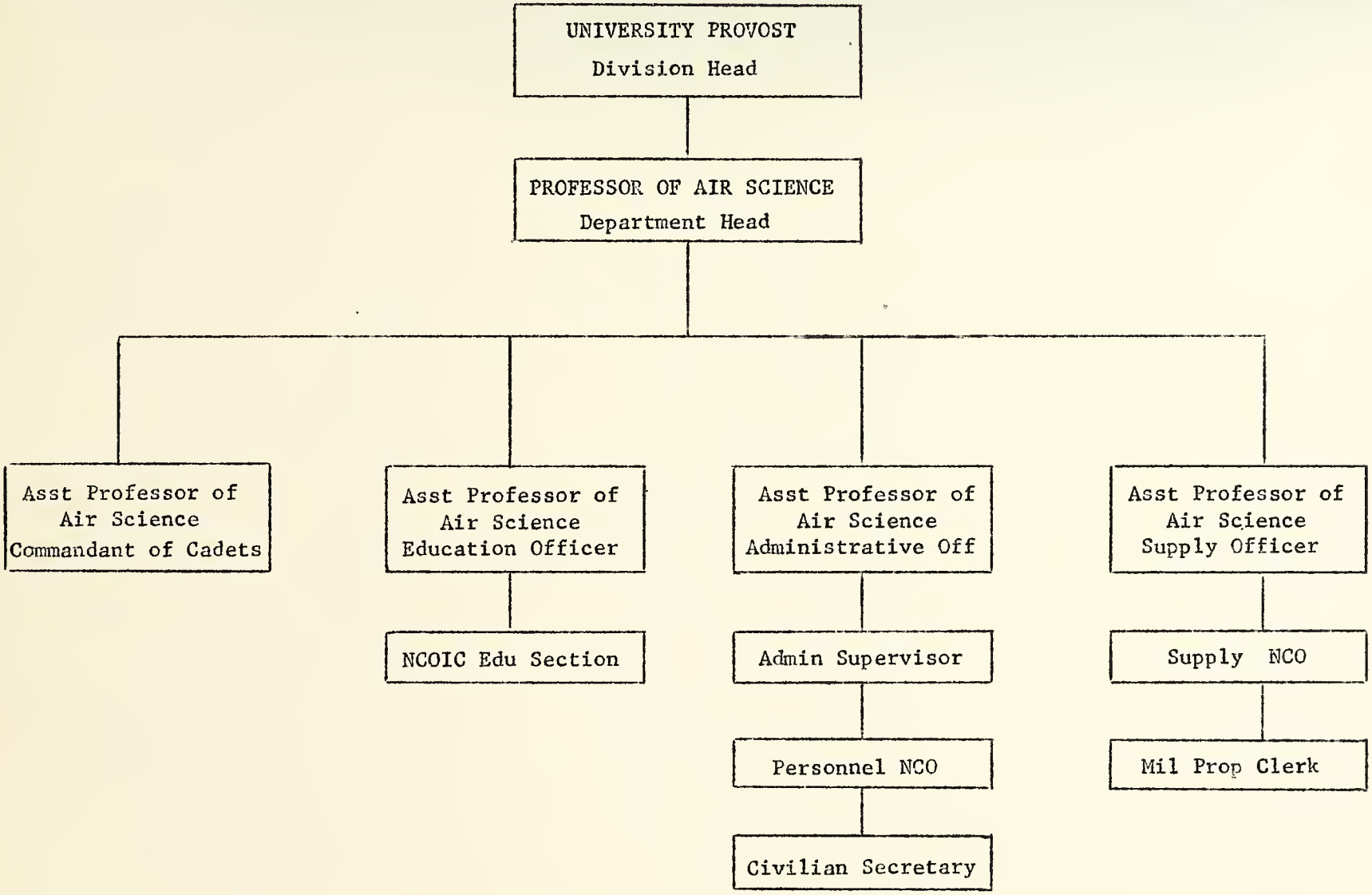
8. FUTURE PLANS AND NEEDS

As set forth above, the new Congressional legislation has improved the mechanical aspects of the AFROTC program. In conjunction with this change there has been a complete updating of the AFROTC curriculum. The complexities of the modern space age have made it necessary to include in the curriculum subjects previously confined to scientific fields. An intensified program of guest lecturers is being introduced. Continued refinement of the curriculum is one of the major goals of the near future.

The new University of Massachusetts Boston campus will greatly amplify our requirements. In order to retain central control of AFROTC it will probably be necessary to establish a sub-detachment in Boston with its headquarters in Amherst. We anticipate a substantial increase in the administrative workload. Initially our requirements for space will be modest, an office for the officer in charge, office space for two typists, two classrooms each to seat approximately 60 persons, a supply room to store uniforms, equipment and textbooks for approximately 120 persons, and a drill area at least 100' x 200'. We anticipate the growth of the unit will parallel the growth of the school.

Roy D. Simmons, Jr.

ROY D. SIMMONS, JR.
Lt Colonel, USAF
Professor of Air Science



Attachment #1

ANNUAL REPORT

1964 - 1965

SCHOOL OF BUSINESS ADMINISTRATION
UNIVERSITY OF MASSACHUSETTS

TABLE OF CONTENTS

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School of Business Administration
University of Massachusetts

PROLOGUE

The School of Business Administration continues to play its part in the continuing development of the University of Massachusetts. The highlight of the year was the occupation of the magnificent new building in September, 1964. It was fitting and quite proper that the most esthetically designed building on the campus should be that for Business Administration. This is no cause for comment when it is realized that the contemporary sponsors of architecture and art are our country's large corporations. In the nature of things our School of Business Administration not only has its vision geared to as effective educational program our resources permit but also the alliance of our educational philosophy with the liberal arts. It is the humble opinion of the Dean that the strength and vitality of the liberal arts are most likely to come from the professional Schools and the professions when vested academic interests may run so deep and intense as in the academic world of the liberal arts.

The chief problem most Schools of Business Administration face today and have faced for some time is the refusal of many administrators to recognize the drastic changes in attitude, in tone, in intellectual content and in standards of service taking place. It is still far too current that the educational efforts of Schools of Business Administration are allied too closely with special businesses as if the Schools were agents or lackeys. We have suffered enormously in the public eye because of this and we have also suffered on the campuses of the universities. It is not that we wish to be divorced from business enterprise but the relationship must be one of mutual respect and the Schools of Business Administration must be educational leaders, not followers; consultants, not messengers; objective, not special pleaders. There is no reason why scholars in Business Administration should be placed in any different

category than those in Chemistry, History, Economics, Physics and so on.

I am proud of my own part in the American Association of Collegiate Schools of Business in emphasizing the above view, in furthering it as a member of the Undergraduate Accreditation Committee and as a member of the Evening Standards Committee. The AACSB has taken active steps to promote the role of superior scholarship, teaching, research and service in Schools of Business Administration.

I stress this issue because it is vitally important and underlays so much in the support or lack of it, financial and otherwise.

SOME FACTS AND FIGURES

1. Appropriations

	1962-1963	1963-1964	1964-1965
03	$9,180	$ 8,200	$11,400*
10	1,620**	1,700**	1,800**
11	....	100	100
12	600	600	600
13	2,000	2,200	2,200*
14	1,500	3,100	3,500*
15	1,000	1,000	500
16	240	150	600

* Deficits in these accounts were covered by the Provost and/or Treasurer.

** Always deficient. A few hundred dollars each year have been covered by the SBA Service Fund.

2. Faculty and Graduate Assistants

	As of September			
	1962	1963	1964	1965(Est.)
Professors	5	5	7	8
Associate Professors	7	8	8	10
Assistant Professors	7	9	13	14
Instructors	2	2	3	3
Graduate Assistants	9	9	10	14

Note: These figures include faculty on leave of absence: One Instructor in 1962; Two Professors and One Assistant Professor in 1964; One Professor and One Assistant Professor in 1965.

3. STUDENTS

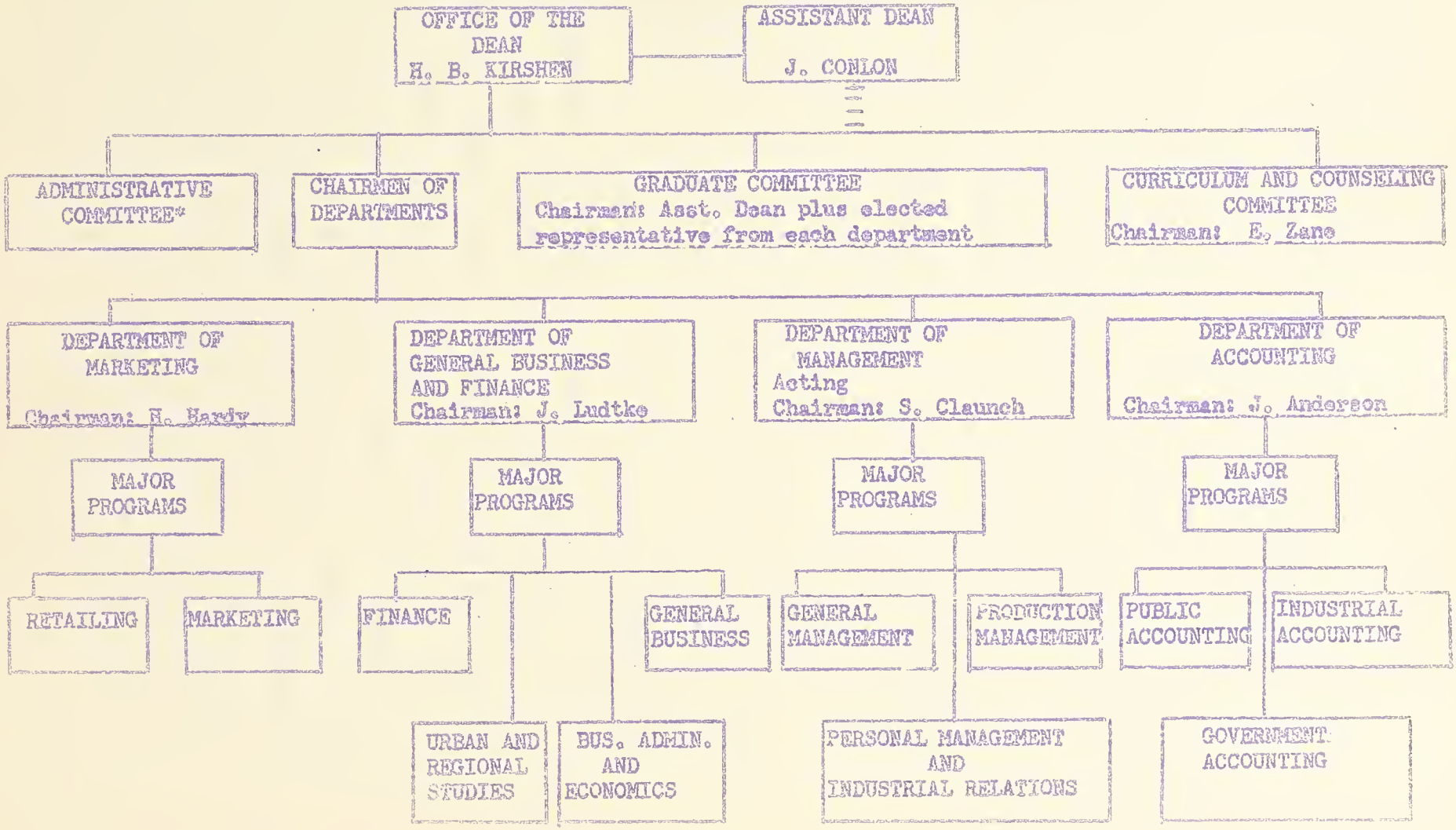
	As of September 1962	1963	1964	1965 (Est.)
Accounting	100	88	114	165
General Business and Finance	59	59	57	90
Management	70	69	87	110
Marketing	49	63	56	90
Freshmen*	161	162	144	250
Sophomores*	158	173	248	275
Graduate Students	39	47	82	100
Total students on campus	636	641	788	1080
Graduate students at Pittsfield	42	46	42	45
Total students taught on campus	1475	1638	1955	2500

* Students select their majors in the second half of their sophomore year. It should be noted that our Sophomore class is almost invariably larger than our Freshmen class due to transfers from both inside and outside the University. The Registrar's estimate for our Freshmen class is, as of now, (June 21) 320.

Enrollments in Schools of Business Administration levelled off between 1959 and 1964 but are now rising, particularly is this true of our School. As in other fields, graduate enrollments are rising at a faster rate. We have between 9.5 and 10% of the total University enrollment but if one excludes women (we have very few) our per cent is between thirteen and fourteen of the men.

4. Organizational Chart
June, 1965

SCHOOL OF BUSINESS ADMINISTRATION



* Includes the Dean, Assistant Dean and Department Chairmen

FACULTY AND DEPARTMENTAL ACTIVITY

A strong faculty is a demanding faculty and this is as it should be however difficult this may appear to administrators. It is almost axiomatic that the stronger the faculty the less economic considerations such as budget limitations are taken into account. The day has almost gone by when faculty recognizes financial constraints. This is not because the current generation of faculty think in utopian terms but because the stronger among them are mobile and do not mind transfering to that university that offers the most. This is only part of the reason noted by many that loyalties to Schools and Universities are weaker than loyalties to subject matter and professional associations and colleagues. A "Community of Scholars" has more scholarship and less community these days. This is an academic fact of life and makes the job of Deans and other administrators different than in the past. Reliance on dedication, loyalty, close ties and "spirit" is less a positive factor than reliance on support of research, access to stenographic help, association with "teams" of one's own professional colleagues, association with graduate assistants, participation in academic policy and the like. It is quite remarkable that it seemed to take so long to recognize this fact. But it is a basic principle, if I can state it as such, of Economics, that the scarcity of a resource relative to other resources, must be conserved, paid for in higher values and recognized as strategic. A present day faculty is such and his association with other scarce resources laboratory equipment, research grants, professional meetings ad infinitum is valued more highly than beautiful scenery(there are exceptions, of course) and intelligent administrators. The latter "must deliver" or the most lovable among them means nothing. The art of "Human Relations" without financial support is the art of living in Heaven or Utopia but not this earth.

Ford Foundation Financed Summer Seminars

Our School continues to be fortunate in having a number of our men selected to attend various Seminars throughout the country. As stated many times in the past, the impact of this has been tremendous on our educational policy, our courses and our recruiting. Our men meet many excellent faculty and can come back with a great deal of information. These experiences keep us from being parochial and self satisfied, although it also keeps us hopping to "hang on" to our faculty. It also compels other Schools to do likewise. In this way, although recognized as wholly legitimate (a minimum of ethical considerations are involved)all of us contribute to the mobility of faculties and the weakening of the "Commmnity of Scholars."

The following were selected for programs:

Assistant Professor Krzystofik.....	Harvard
Professor Ludtke.....	Harvard
Professor Cheng.....	California (Berkeley)
Assistant Professor Theilman.....	Chicago
Associate Professor Rivers	Brown

Since 1959 a minimum of two and usually four to six of our faculty have been selected for Ford Foundation Grants. These are to end within a year or two although Ford Fellowships will continue to be available. We received three the past four years: Professor Ludtke did not accept his a few years ago to become a Sloan Fellow at M.I.T. This past year Professor Pao Cheng had a Fellowship and for 1965-1966 Professor Frank Singer will have one. These grants pay full salary plus travel and research money plus an amount to pay for fringe benefits and retirement at the University.

Publications and Research by Departments - (Please see Appendix A)

SPECIAL PROGRAMS

1. An outstanding program and one that can be remembered with great satisfaction was the dedication of our new building on April 13, 1964. About 300 or more visited the building and 250 attended the Buffet Luncheon. The program follows:

Registration:	10:00 - 11:30 a.m.
Buffet:	12:00 noon
Welcome;	John W. Lederle, President of the University
Invocation:	Rabbi Louis R. Ruchames
Address:	The Honorable John A. Gronouski, Postmaster General of the United States: "It's Your Business: The Role of the Post Office in Our Economy."
Panel:	"Education for Business in the Twentieth Century."
	The Honorable John A. Gronouski.
	Dr. Jean Paul Mather, Executive President of the University City Science Center, Philadelphia.
	Dr. Paul S. Garner, President of the American Association of Collegiate Schools of Business; Dean of the School of Commerce and Business Administration, University of Alabama.
	Dr. Leonard S. Silk, Senior Editor of Business Week; Education Consultant of the Committee for Economic Development.
	Dr. H. B. Kirshen, Moderator, Dean of the School of Business Administration, University of Massachusetts.

At this dedication we announced the establishment of a Business Advisory Council of prominent men from business, banking, education and publishing. A list of these men will be found in Appendix B.

2. We had an unusually successful Conference on Mass Merchandising Management April 26,27, and 28, 1965. More than 200 attended and the Industry allocated $7500 for research and general purposes of the School. Under the Chairmanship of Professor Drew-Bear the first publication of statistical information was distributed to the Industry. Both the School and the Mass Merchandising Industry recognize the need to improve the collection and interpretation of such data and this will be done during 1965-1966.

3. We have begun (June) our seventh JET (Junior Executive Training) Program of young, mostly European, businessmen. Each year the Experiment in International Living has financed the program, costing from $9,000 to $12,000 each. Professor Lentilhon is coordinator and has done a very good job indeed in making all the arrangements and, with the aid of a faculty committee, planned the academic nature of the six weeks program.

4. The Colloquium this year was, like last year, particularly interesting. Professors Elkins and Dodds acted as coordinators. We are fortunate in having outstanding men as speakers.

Fall Semester, 1964

October 8	Professor Edward B. Roberts M.I.T.	Business Applications of Feedback Systems.
December 10	Professor John F. Mee Indiana University	Conceptual Foundations of Management.
January 7	Professor Frank Mulling University of Massachusetts	Where are we now in Accounting Principles?

Spring Semester, 1965

February 25	Melvin L. Hurni Vice President, A.B.Dick Co.	Personal Justification in a Business Career
March 11	Dr. Stanley F. Teele, Treasurer, Amherst College. Formerly Dean, Harvard Graduate School of Business Administration	The Role of Mutual Funds in Our Society and Our Economy.
April 22	Dr. John Fayerweather New York University	The Multi-National Corporation in a Nationalistic World.

5. We are experimenting with our Report and Case Writing of our graduate students and this may very well come under the heading of a Special Program.

For the past two years we have allocated a graduate assistantship to a student in the Department of English. His function is to read all the case reports handed in by students in five of our courses and grade them for their English. The regular instructor grades them for content and affixes the final grade. The students needing special help are individually tutored by the assistant.

We have noted a great improvement among our graduate students. We plan to extend the scope of this experiment and appoint (with the consent of the Provost) a part-time Instructor. We think that our plan can be adopted elsewhere and with profit.

FUTURE PLANS AND NEEDS

First of all let me state that no course of study contemplated for the Boston Branch of the University should be established without close guidance and administration under this School of Business Administration. Not only can accreditation be influenced but also the stature of the Boston program. The pressure for evening work in Boston will be mounting and the weakest link in Schools of Business Administration throughout the country has been the evening divisions or programs. A number of Schools have been denied accreditation and a number are now submitting plans to the AACSB (American Association of Collegiate Schools of Business) to upgrade their offerings and faculty. Let us not begin where Schools began in such things years ago to their present shame and embarrassment. I am certain that Dr. Ryan, the new Chancellor agrees with this position.

At the present rate of increase we shall need to plan for a new building by 1967 and it should be erected by 1969 at the latest. I envision this building to be primarily for graduate students. It should have an adequate Library this time and one worthy of a School of Business Administration.

1. As stated in the last Annual Report we now have an "Internship Program" for three of our four Departments: General Business and Finance, Management, and Marketing. Each summer between the junior and senior years outstanding students will work under Departmental supervision in selected business establishments. This plan is nothing new in Schools such as ours but we hope

to improve upon the experience of others and fit this kind of "laboratory" experience into our faculty-student relationship.

2. An Ad Hoc Committee consisting of Professor O'Donnell (Chairman), Professors Dennler and Theilman expects to have a first report on a Ph.D. Program by October, 1965. We expect a completed plan by December and hope to offer the degree by September, 1966. There has been much spade work on this these past three years under the Chairmanship of Assistant Dean Conlon and the Graduate Committee.

3. With strength added to our faculty we now feel we can extend our interests to an Executive Development Program. The JET Program is one, but we contemplate a larger effort inviting prominent American firms to participate. We also have in mind short seminars or "clinics" for small business firms. All this requires manpower. The chief danger many Schools have discovered is the tendency to overload faculty with "paying" programs to the sacrifice of regular teaching and significant research. The problem of management: the conservation of scarce resources is ever present. This problem the Deans have never adequately discussed or probed. Because of this strategic oversight the tendency is for the more "business minded" administrators to take over and assume that the allocation of funds according to a formula is more appropriate than the management of problems met by Deans in their respective Schools. In the academic world there is a constant adjustment between the necessities of a budget and the necessities of an academic quest for excellence. There will always be some gap between the two, but it is a Dean's function to minimize the gap.

Respectively submitted,

H. B. Kirshen

Dean

HBK:EA

APPENDIX A

Grants, Research and Faculty Activity

Department of Accounting

John Anderson: (Chairman)	Participant in program of the Northeastern Accounting Association, Babson Institute in April, 1965.
	Text, PRINCIPLES OF ACCOUNTING (with Professor Lentilhon), published April, 1965 by Simmons-Boardman.
	On program of Springfield Chapter, National Association of Accountants, 1965.
	On Education Committee, Massachusetts Society of CPA's.
Carl Dennler:	Book review in the Accounting Review, 1965.
	On program of Springfield Chapter, National Association of Accountants, 1965.
Anthony Krzystofik:	Program Chairman, National Association of Accountants, Springfield Chapter.
	Associate Editor, Bulletin of the Massachusetts Society of CPA's.
	Visiting Case Study Program, Harvard Graduate School of Business Administration, summer, 1965. (Ford Foundation Grant.)
Robert Lentilhon:	On program, National Association of Accountants, Springfield Chapter, 1965.
	Text (with John Anderson), PRINCIPLES OF ACCOUNTING.
Frank Mulling:	On program, National Association of Accountants, Springfield Chapter, 1965.
	Colloquium speaker, School of Business Administration, fall, 1964.
Frank Singer:	Visiting Professor, Bowling Green University, 1964 - 1965.
	Ford Foundation Fellowship, academic year, 1965 - 1966.

Department of General Administration

James [illegible]
(Chairman)

Revision of Text, American Financial System, Published by Allyn and Bacon, Inc.

Book Review for Journal of Finance, December, 1964.

Invited to Federal Reserve Bank of [illegible] Program in fall, 1964.

Served as reviewer for four articles for the Journal of Finance.

Ford Foundation summer grant to attend Workshop in Finance at Harvard Graduate School of Business Administration, 1964.

Consultant and researcher for City Bank of Richfield.

Pao Cheng:

"Consumption of Nondurable Goods and Contractual Commitment of Income," Journal of Economic Abstracts, Winter, 1964.

Paper presented, "Game Structure and Bargaining Power," Carnegie Institute of Technology, summer, 1964.

Ford Foundation Fellowship Grant, 1964 - 1965.

$3500 grant from research fund of the Labor Relations Center.

Presently working to complete a number of articles and a book on Business Statistics, Bayesian Approach, under contract with Allyn and Bacon.

Two articles to be published in 1965 by Carnegie Institute and the University of California.

Richard Hartzler:

Review, "Cases in Antitrust Policy," American Business Law Journal 354, September, 1964.

$1500 grant from research fund of the Labor Relations Center.

Robert Rivers:

Review, Taff, Management of Traffic and Physical Distribution in Transportation Journal, fall, 1964.

Invitation to Conference sponsored by the New England Telephone and Telegraph Company, New Hampshire, 1965.

Department of General Business and Finance
(continued)

Robert Rivers: (continued)	Ford Foundation summer seminar grant, Brown University, summer, 1965.
Ward Theilman:	Conference, Federal Reserve Bank of Boston, 1964.
	Editorial comments on article to appear in American Economic Review.
	Paper presented, "The Variability of Leverage Ratio," Harvard Research Seminar in Finance, summer, 1964.
	Ford Foundation Summer Grant, Workshop in Finance, University of Chicago, 1965.
	Consultant (with Professor Ludtke) for City Savings Bank of Pittsfield.
	$1,000 Junior Research Grant, summer, 1965, University of Massachusetts.

Department of Management

Sidney Claunch: (Chairman)	Ford Foundation Fellowship, "Workshop in International Business" at New York University Graduate School of Business, summer, 1964.
Gordon Chen:	Ford Foundation Fellowship, "Research Seminar in Quantitative Methods" at Cornell University, summer, 1964.
	With Professor Winters of Stanford, author of working paper #59 (Stanford), "Forecasting Peak Demand for an Electric Utility with a Hybrid Exponential Model" (1965).
	Contributed cases to Production Management Analysis by Silver Garrett and Yest (Harcourt, Brace, and World, Inc., 1966.)
	Author of case, "Metropolitan Power Company," published by Collegiate Case Clearing House, Boston, 1965.
	Recipient of $800 grant from Research Council, University of Massachusetts, 1965.
Arthur Elkins:	Indiana University Summer Fellowship grant to work on DBA dissertation, 1965.
	Director of School of B.A. Colloquium, fall, 1964.
Thurlo Johnson:	Visiting Professor's Case Method Program at Harvard Graduate School of Business Administration, summer, 1964. (Ford Foundation Grant.)
Walter O'Donnell:	Paper presented at Fifth International Management Conference, Lima, Peru, 1964.

Department of Marketing

Harold Hardy: (Chairman)	On Committee, Mass Merchandising Conference.
	Editorial appraisal of Marketing Management, published by the Ronald Press.
	Invited to attend the Eastern Annual Conference of Advertising Agencies, New York City, 1965.
Robert Drew-Bear:	Chairman, Conference on Mass Merchandising Management, 1965.
	Consultant, Department manager training, Hardline Distributors, Norwood, Massachusetts.
	Edited and published "Merchandising Operations of Self-Service Discount Department Stores."
	Director and coordinator of the Research Program of the Mass Merchandising Industry.
Hale Dodds:	Participant in Conference, Mass Merchandising Management, 1965.
	Director, spring semester, School of Business Administration Colloquium.
Edward Zane:	Committee on Conference on Mass Merchandising Management.
	Consultant, Massachusetts Governor's Council of Economic Advisors.
	Educational Chairman, Delta Nu Alpha, Transportation Association, Pioneer Valley Chapter.
	Publication, "Wholesaling and Retailing in Massachusetts, New England and the United States" for Governor's Council of Economic Advisors.

Appendix B

Business Advisory Council

School of Business Administration

Mr. Charles A. Campbell.....Vice-President, I.B.M. World Trade Corporation
821 United Nations Plaza, New York 17, New York

Mr. Harold Elder.....Owner, Mutual Plumbing and Heating Company
63 South Pleasant Street, Amherst, Mass.

Dr. George Ellis.....President, Federal Reserve Bank of Boston
30 Pearl Street, Boston, Mass.

Mr. Fred Emerson.....University of Massachusetts Trustee
Vice-President, Spartan Saw Works Inc.
152 Fisk Avenue, Springfield 7, Mass.

Mr. Roger Putnam.....Chairman of Board, Package Machinery Corporation
East Longmeadow, Mass. 01028

Dr. Leonard Silk.....Senior Economic Editor of BUSINESS WEEK
330 West 42nd Street, New York, New York

Mr. Philip Singleton.....President Pro-phy-lac-tic Brush Company
Florence, Mass.

Mr. Herman Stuetzer, Jr.....Partner Lybrand Ross Brothers and Montgomery
80 Federal Street, Boston 10, Mass.

Dr. Stanley Teele.....Former Dean of the Graduate School in Business
Administration at Harvard, and now
Treasurer of Amherst College
Amherst, Mass.

Mr. Erskine N. White.....Former President, New England Tel. & Tel. Boston
Center Sandwich, New Hampshire

June 1, 1965

President John Lederle:

Sir, I beg leave herewith to present my ninth annual report of the School of Education.

The School has now completed its ninth year and again I must report a very big year. We have been in our present facilities for four years and already we are beginning to be crowded, particularly for office space. Our equipment, with the additions made possible by the two hundred thousand dollar capital outlay grant, will be second to none. The possibility of School buildings, and of the development of a Learning Resources Center, all of which are in the advanced planning stage, lend an atmosphere of excitement and exhileration to our whole operation.

It is in this context that I write this report. In presenting a picture of needs one sometimes seems to be complaining. On the contrary, we wish to present a picture of an on-going operation with many fine resources at our command but with an almost insatiable appetite for more.

Once again we wish to express our appreciation for the enceuragement and support of the administratien. In such a rapidly growing School such encouragement and support is not only essential but very conducive to morale. We wish in turn to assure the administration of our continued loyalty and support.

Albert W. Purvis

awp:lph

School of Education Faculty and Staff. The situation with regard to staffing our rapidly growing School has not been too good in the past and it has rapidly become much more serious. The past few years the School has been handicapped by lack of adequate funds and consequently we have had to recruit new candidates directly from graduate school and with a considerable proportion still awaiting their degree. This has resulted in a bottom-heavy curve so far as the ranks of faculty are concerned. Several of these young appointees are coming along very well indeed and they will undoubtedly grow and add considerable stature to the School but there has been a rather high attrition due to the fact that concentration on dissertations or concentration on starting courses not previously taught has prevented adequate concentration on the elements needed for professional advancement. The new tenure regulations permitting six years of effort and evaluation will aid greatly in this respect. This year we received a much more generous amount for faculty procurement only to discover that the bottom seems to have dropped out of the supply market so far as Education is concerned. It is true that we have been able to recruit several strong faculty but in several areas the positions still remain unfilled. It is somewhat disconcerting to travel the country with sixteen thousand dollars and not be able to find any acceptable candidates in special education or in English education who are willing to sign contracts. Recruitment, therefore, must become one of our major concerns and no longer can it be done from our desks on campus. It is hoped that adequate funds will be available to enable us to keep on the road for considerable periods of time seeking out likely looking candidates. The situation is much more serious in our School because we are only now developing to the status which many or most of the prestige Schools of Education enjoyed thirty years ago. On the other hand the lateness of our start may well have values in terms of fewer built in handicaps and traditions and in terms of a staff which is young enough to have studied all the newer methods and techniques.

We are still pressing hard for more supporting staff. We never seem to have enough secretarial help. Our operation is so complex, our service load is so heavy, our programs need so much off-campus practice, and we have so many off-campus contacts that the usual formula of "so many professors get so many secretaries" does not apply. The Personnel Office

realizes this and we are convinced they are doing their best but we still find our secretaries flooded with work most of the year and many desirable projects get postponed or are dropped. The situation is also serious in the technical ranks. We very much need two more electronic technicians and two more technical assistants if our three hundred thousand dollars worth of electronic equipment is to have maximum usage. We are assured that every attempt will be made to answer our needs from the inadequate pool of positions available this year. We can only hope that the Legislature will be more generous with such supporting staff than it has been in the past.

Again we must report entirely inadequate funds for graduate assistants. To us it is indeed inconsistent that the second largest school on campus so far as graduate work is concerned should have only twenty-five thousand dollars for these very essential appointments. There are at least half a dozen good reasons why a school which has several doctorate programs should have large numbers of graduate assistants. Only <u>one</u> of these good reasons is the necessity to use them as teachers of freshmen courses and yet this seems to be the major criterion used in allocating the funds. We feel that the service function in which we are becoming more and more involved should rate at least equal consideration as a criterion.

It is with regret that I report the death of two members of my faculty during the school year:

Professor Charles F. Oliver passed away on December 11. He was the first faculty member appointed by me when I became Department Head in 1945 and during all his tenure at this institution he was a very loyal, conscientious and efficient worker. Consequently his passing has been a very personal loss to me as well as a professional loss to the School of Education.

Professor Bruce C. Warner passed away on April 22. He had been a member of our faculty for less than two years but already he had impressed all of us with his friendliness, his concern for his students, his scholarship, and his search for better techniques. All of us, including the students under his supervision, regret the passing of one so young and with so much potential.

School of Education Building and Equipment. The School entered its present quarters in September, 1961 and already there is considerable evidence of crowding. Expanding enrollments and faculty demand additional space and new programs demand specialized areas. For September, 1965 we are erecting movable partitions in one classroom and two seminar rooms in order to get additional office spaces and this will take care of immediate needs only. The failure to obtain funds for an architect last year was a definite set back. A like failure this year would result in a very serious situation so far as expansion of the School is concerned. Our rapid development in the area of learning resources, our needs in our doctoral programs which are expanding in number and enrollment, our needed development in special education, and the contemplated initiation of an ambitious new program in Distributive Education all point to the urgency of starting our addition as soon as possible.

The Administration has been most generous in providing equipment for our School and consequently we have one of the best equipped buildings on campus. The addition of the two hundred thousand dollars of capital outlay funds and the possible addition of funds to institute on-the-air broadcasting of educational television will raise our School to the status of one of the best equipped in the country. The School is moving ahead slowly with drawing up specifications for this new equipment because we have to draw a fine line between what is needed for the School and what would be desirable to meet the needs of other phases of the University program such as publicity and public relations. There is very frequent communication between the School of Education and the public relations and news officers in the consideration of specifications. It is expected that all of our new equipment, with the exception of on-the-air broadcasting, will be in operation by the second semester. Presently engineers are making a study of television transmission in the valley. The report should be in soon and we expect it to favor the installation of a television studio at our School with transmission towers on Mount Tom. This station would then tie-in with Channel 2 in Boston to get almost complete coverage of the state. It is hoped that every effort will be made to promote this project because the rewards in terms of education, continuing education, service, and public relations would be very great.

A Proposed Learning Resources Center. Until now many of our efforts in the area of Learning Resources have been rather spontaneous and like Topsy have "just growed". Under the circumstances it is not surprising that some of them like closed circuit television, radio, and photography have flourished while others such as programmed learning, film library and on-the-air television have been either neglected or have fared poorly. This situation should not continue. One of the greatest changes in education in the past decade has been in the greater use of technology and electronics. Radio, television, programmed instruction, and film have proved themselves to the extent that they are now very useful resources in the learning process. There is, however, still much to be learned about them and their usage and in particular much to be learned about how to use these resources in individual instruction and thus to free the teacher for more creative teaching. As President Johnson has put it, "Nuclear age problems cannot be solved with horse and buggy learning". As a State University we have the responsibility not only to show prospective teachers how to use these resources most effectively but also the responsibility to pioneer in the discovery of new uses and new devices. We feel that this can be done most effectively by locating all of these resources and the staff, both technical and teaching, which work with them in one center to be called a Learning Resource Center. Here would be found the staff and the facilities for all audiovisual education including film library, transparency library, radio, motion pictures, closed-circuit television, on-the-air television, tape recorders, overhead projectors, and all the rest. It is planned to have the necessary offices, special purpose rooms and studios in our new addition to house the center in one large area. It is also planned that this become a teaching center as well as a service center. It is expected that most if not all of the professional experts in the various areas will also teach courses in their specialty. This will make possible the development of a doctoral program in Learning Resources or Communications, a program that is presently offered in very few institutions with the result that it is very difficult indeed to find professional staff with this degree. In this planning we have shunned two of the mistakes found so frequently in state universities around the country, namely (1) the scattering of these resources all around

campus and (2) the separation of personnel in these areas from teaching. With adequate financial resources this area could well become one of the most useful and the most dynamic areas on campus.

The School Service Center. The Center is at present less than a year old yet it appears to have established itself as a going concern. Forty school systems have now joined the center and more have expressed interest of varying degrees. The purposes for which the organization was founded include improving the quality of instruction, dissemination of information regarding educational matters, sharing of ideas and practices, initiation of in-service and research activities, and the broadening of the perspective of administrator-school board relationships. Although the short length of time has not permitted any great advance on any of these fronts it seems fair to state that the Center has considerable potential and that it will be of service if only a few of the objectives are met in any one year. One innovation this year was the beginning of TREND, a periodical of the Service Center. This is an ambitious undertaking with planned publication of three issues a year. This could be a very important vehicle if care is exercised to include only material that has scholarship and depth. The School Service Center's programs during the year included conferences, television appearances, and a School Committee-Superintendent Banquet all of which were planned by an Executive Committee composed of school superintendents and University professors. It seems evident that this Service Center could very well have a considerable impact both on our School of Education and on the member school systems. We expect this impact to show itself in more and more requests for the School of Education to undertake various types of school surveys and studies, all of which are a part of the services which we should be providing but many of which will be a drain on our faculty, particularly those in educational administration. It is obvious that this area is one which must be expanded

considerably both in terms of faculty and in terms of supporting graduate fellows as soon as qualified candidates can be found. The difficulty here is to find candidates with adequate administrative experience and with proven ability in research, publication, and consultation who can be moved to the University from the relatively high salaried positions they are now holding.

Advisory Committees. The School of Education has for many years adopted the policy of seeking advice and cooperation from various areas with which we come in contact. The present cooperative agreement with the Amherst School Committee for the administration of our Laboratory School is a good example as is the agreement with the State Division of Vocational Education for a cooperative endeavor in the education of teachers of vocational agriculture. Three other advisory committees are now in the process of formation, as follows:

An Advisory Committee on Educational Administration. This committee was created as part of a continuing effort to establish and to maintain a high quality doctoral program in Educational Administration. The committee is composed of school superintendents, University professors from other disciplines, and professors from the School of Education. It has a three-fold purpose--evaluative, advisory, and liaison among the three groups involved. This Committee has the potential to add much of value to our doctorate in Educational Administration.

An Advisory Committee on Community College Teaching. This fall we accept the first students into the Master of Arts in Community College Teaching. In order to obtain maximum value in this program a committee composed of community college presidents, University professors of other disciplines, and professors from the School of Education has been formed. It is contemplated that this committee will concern itself not only with

advising on policy but also in the selection of candidates, their allocation to particular community colleges for their internship, and the placement of students when the program is completed. It is expected that the total involvement of the community college presidents from initial selection of candidates to final placement will greatly enhance the value of the program not only for the institutions but also for the student candidates.

A Committee on Distributive Education. At a meeting two years ago the Directors of Vocational Education for the New England states voted to establish a regional center for the education of teachers and supervisors of distributive education at one of the State Universities. Later a subcommittee chose the University of Massachusetts to be the center. In April, 1965 three experts on distributive education were brought to the campus to draw up a plan for implementing the establishment and running of the center. It is now contemplated that the center would be responsible not only for the education of teachers for distributive education but would also have concern for the in-service education of teachers through conferences, workshops and such other means as might later be determined. An advisory committee composed of Directors of Vocational Education, teachers of distributive education, University professors of other disciplines, and professors from the School of Education is being formed to obtain maximum results. Although this project is still in the process of development there is reason to believe it will become a reality in the near future.

Program Development. No new programs were proposed during the year but considerable progress has been made on proposals for several which we plan to initiate next year. Some of these are:

Master of Arts in Community College Teaching. This program was planned over a year ago at the request of several community college presidents but students will not be admitted to the program until next September. This is a

rather unique program in that it involves the presidents in the selection of candidates, in the placement of interns in their institutions at three-quarters of an Instructors salary, and in the placement of candidates in teaching positions. The candidates will spend two semesters and a summer school on the University campus followed by a year's internship. Their course work will include twenty-four to twenty-seven semester hours of work in their teaching area and fifteen in professional courses. The cooperative committee which is advising on this program is described elsewhere in this report.

Program in Distributive Education. This is a program designed to educate teachers to initiate programs in distributive occupations such as retailing, marketing, and transportation. This type of training is gaining wide acceptance in several parts of the country where old-style farming is giving way to new techniques and where much of the farm labor force of decades ago is now occupied with getting food to market. As described elsewhere, a cooperative committee has been set up and a study made of the requirements for getting the program started. In general, the educational program will be made up of fifty-five percent general education, twenty-five percent courses in the School of Business and twenty percent courses in the School of Education. The specific courses to be taken will depend largely on certification requirements in this and in neighboring states. At present the Federal Bureau of Vocational Education is being asked to finance the program at approximately five hundred thousand dollars for five years. If this request is not granted, there is a strong probability that the Departments of Vocational Education in this and in neighboring states will undertake to carry the cost. This program seems to open up interesting possibilities for development.

Special Education. We had hoped to start in a small way on this program next fall but so far we have been unable to discover an acceptable candidate who could be placed on contract. One of our new faculty has had sufficient background in this field so that planning can be started. One of the very noticeable emphases in modern education is the attention given to atypical students. In fact, much more would be done in this area if adequately trained teachers could be found. We are particularly interested in educating teachers for the mentally retarded and for the emotionally disturbed but it seems obvious that new poverty programs will exert pressure in the direction

of educational attention to the culturally deprived and to the whole question of educational diagnosis and rehabilitation. We plan to have in our new addition an area devoted to Special Education and a very modern Educational Diagnosis Clinic. We plan to continue our search for faculty to aid in this very important area.

Educating Curriculum Coordinators. One of the new developments in educational administration on the pre-college level is the emergence of the new position of Curriculum Coordinator in various fields such as mathematics and science and, since the publication of Dr. Donant's book, in English and in social studies. This individual is responsible for coordinating the work in his area from kindergarten through grade twelve. He supervises the teachers, tries to improve instruction in his area, has teacher groups working on curriculum materials and learning resources, and evaluates progress. This program will be a doctorate program in which approximately fifty percent of the course work will be in the subject area in Arts and Science. This could well be one of the very exciting and dynamic programs for the doctorate and our very fine educational facilities put us in a very good position to undertake it.

Our Uganda Project. This year has been a very rewarding, though sometimes frustrating, one in our project to build, to organize, and to run the Tororo Girls School. It has been rewarding in that it has seen the completion of construction, the placement of equipment, the organization of the curriculum, the entrance of the first class of girls, and finally the Dedication which will take place on June 19. This is the end of our first phase of planning, and the results of this phase seem to be very good. The campus is very beautiful and it seems educationally functional. The Ugandans seem very proud of their new school as is evidenced by the fact that this was one of only three schools in all Uganda which they chose for Princess Margaret to visit on the occasion of her state visit in March. The Inspector

General of all A.I.D. projects in Africa was quite complimentary when he said that "in his opinion A.I.D. had received more for its money in this project than for any other he had visited in Africa" (quoted by Mr. Albert Slaughter, Acting Head A.I.D./Uganda). At present the University has nine professional employees in Tororo and the number will increase to eleven next year. The budget for the next three years amounts to $769,065 with the possibility of an amendment which will add over eighty thousand dollars. The present plans call for an extension of the contract through 1971.

It is difficult for one who has been so close to a project to evaluate it objectively, but it is my opinion that we have made very encouraging progress so far. Our job now is to make a real school out of the beautiful campus we have constructed. The growth of a school is largely a product of the pupils and the staff. We undoubtedly will run into problems in recruiting the right kind of staff. Not only must they be good teachers but they must be able to adjust, and above all they must be friendly, dedicated people who are knowledgeable of African ways and ideas and sensitive to African feelings and attitudes. The importance of recruiting the right kind of teachers is impressed upon us by the fact that already we have had to return one of them back to the United States because she did not meet the high standards required of them. I have emphasized that they must not only be good teachers but also good people and good Americans because this school is being watched all the way from Ethiopia to Malawi by people who are interested in the experiment exhibited by the "American School at Tororo" as it is called.

Part of our contract calls for sending a research team to Tororo this summer, and also in 1971, to see if we have succeeded in meeting the objectives we have set for the school and in general to study the impact the school has made on various parts of Ugandan society.

The Dedication on June 19 will be an important occasion. Visitors will include the Prime Minister of Uganda, the United States Ambassador to Uganda and the Minister of Education. The American staff, the A.I.D. mission in Uganda, and the Ambassador have all made a special request that President and Mrs. Lederle accompany me to this important event and I am delighted that they have accepted. Their presence will add much prestige to the event and it will, I am sure, raise the morale of our staff in the school to know

that their President considers this an important University project. Since this is a girls school I am sure the presence of Mrs. Lederle will be considered especially important and significant.

APPENDIX A

1. Appropriations - Education

	1961 - 62	1962 - 63	1963 - 64	1964 - 65
03	21700	22000	29940	42665
10	4900	5000	5500	9200
11			37	22
12	500	1000	1000	1000
13	5700	5700	6250	7255
14	1000	1400	1400	1400
15	8500	5000	7500	8210
16	400	400	225	300
Library	5000	6000	7000	11000
	39700	46500	58852	81052

Appropriations - Audiovisual

03	500	700	2500	2500
10	150	200	500	550
11	200	500	200	200
12	1000	1200	3500	3500
13	4000	4000	5400	6300
14	325	350	600	300
15	4500	2530	5000	5000
	10675	9480	17700	18350

2. Personnel - Teaching - Education

Instructor	1	1	3	3
Instructor "A"				1
Asst. Prof.	10	12	14	17
Asst. Prof. "A"	1	1	1	1
Assoc. Prof.	3	3	3	2
Professor	3	3	3	3
Professor "A"			1	
Dean, Assistant				1
Dean, Head	1	1	1	1
Total	19	21	26	29

Personnel - Other-Education

Electronic Tech.	1	1	1	1
Principal Clerk				1
Sr. Clerk-Sten.	1	1	1	1
Jr. Clerk-Sten.	3	3	4	5
	5	5	6	8

Personnel - Audiovisual

Asst. Director	1	1	1	1
Staff Assistant			1	1
Radio Maint. Super.		1	1	1
Tech. Assistant	1	1		
Electronic Asst.	1	1	1	2
Sr. Clerk-Typist	1	1	1	1
Jr. Clerk-Typist	1	1	1	1
	5	6	6	7

3(a) Number of Majors (Elementary Education)

September 1960	397
September 1961	426
September 1962	448
September 1963	485
September 1964	607

Number of University students currently enrolled in Secondary Education but majoring in other departments 1392.

(b) Number of Students Taught

Year	Undergrad	Grad	Total	Undergrad	Grad	Total	Undergrad	Grad	Total
1960-61	553	197	750	598	203	801	1151	400	1551
1961-62	748	239	987	741	223	964	1489	462	1951
1962-63	866	277	1143	814	323	1137	1680	600	2280
1963-64	903	402	1305	890	459	1349	1793	861	2654
1964-65	1023	666	1689	1035	665	1700	2058	1331	3389

Total enrollment has increased by 118%
Undergraduate enrollment has increased by 78%
Graduate enrollment has increased by 232%

A N N U A L R E P O R T

O F T H E

S C H O O L O F E N G I N E E R I N G

1 July 1964 - 30 June 1965

UNIVERSITY OF MASSACHUSETTS

June 1965

Annual Report of the School of Engineering

1 July 1964 - 30 June 1965

15 June 1965

1. Appropriations

	1962-63	1963-64	1964-65
01	$ 488,076.	$ 557,135.	$ 665,622.
02	19,493.	16,897.	30,017.
03	13,000.	14,700.	20,700.
04	100.	100.	100.
10	3,000.	3,300.	3,750.
11	220.	260.	125.
12	8,370.	8,400.	8,400.
13	19,800.	17,750.	21,500.
14	2,000.	2,000.	6,400.
14-1		2,200.	----
15	18,000.	27,000.	32,000.
16	650.	880.	2,500.

2. Personnel

The table indicates the personnel by rank for the years noted.

September	1962	1963	1964
Deans	2	1	2
Department Heads	4	4	4
Professors	10	12	11 1/2
Associate Professors	16	16	18 1/2
Assistant Professors	12	14	15
Instructors	3 1/4	0	3
Teaching Associates and Assistants	12	15	22
Lecturers	1	2	1

3. Organization Chart as of September 1964

4. a. Number of Majors (September)

		1962	1963	1964
Ch.E.	Sr.	30	26	19
	Jr.	30	26	20
	Soph.	33	12	24
C. E.	Sr.	24	24	39
	Jr.	37	48	57
	Soph.	49	16	49
E. E.	Sr.	50	38	53
	Jr.	60	63	49
	Soph.	73	34	84

SCHOOL OF ENGINEERING
University of Massachusetts

October 1, 1964

ASSISTANT DEAN

(2) E. J. Rising (1/2)
Basic Engineering
High School Relations
Transfer Students

DEAN

E. E. Lindsey (Acting)
Secy. Miss D. E. Brownell
Research. Graduate Curricula
Relations w. Industry and Govt.

ASSISTANT DEAN

(1) J. S. Marcus (1/2)
Administration
Student Labor (03)
Upper Division Curricula

Secy. Miss S. G. Wolfram
Secy. Mrs. C. L. Bristol
Secy. Mrs. M. E. Morrier
Secy. Miss M. A. Stokarski

Mr. S. Rogers

BASIC ENGINEERING GROUP

(2) G. P. Weidmann
(3) C. R. Bissey
(3) K. Kroner
(4) F. G. Umholtz
(4) C. L. Fohlin
Dept. Reps. (1/4)

CHEMICAL ENGR. DEPT

(1) J. W. Eldridge, Head
(1) K. D. Cashin
(1) J. S. Marcus (1/4)
(2) H. C. Duus
(2) L. H. S. Roblee, Jr.
(3) T. J. McAvoy
(3) R. J. Novak
Lect. D. C. Chappelear

Secy. Mrs. S. M. Moore

Mr. R. L. Glazier
Mr. J. T. Gurski

Buildings and Grounds

Mr. L. Blizniak
Mr. F. H. Jones
Mr. J. W. Reiter
Mr. A. Stefan
Mr. R. Yurkevicz

ELECTRICAL ENGR. DEPT.

(1) G. D. Sheckels, Head
(1) J. W. Langford
(1) C. S. Roys
(2) G. W. Bett
(2) F. H. Edwards
(2) J. A. Fitzgerald
(2) J. E. Laestadius
(2) J. W. Mohn
(3) H. A. Herchenreder
(3) B. W. Lovell
(3) D. E. Scott
Vis. P. S. T. Maunder (1/2)
Vis. P. F. R. Longley *

Secy. Mrs. J. A. Tudryn

Mr. W. F. Cook
Mr. F. G. Duda
Mr. D. Stratford

Notes:

(1) = Professor
(2) = Associate Prof.
(3) = Assistant Prof.
(4) = Instructor
* = On Leave, Fall 1964

MECHANICAL ENGR. DEPT

(1) W. H. Weaver, Head
(1) M. E. Bates
(1) J. H. Dittfach
Com. P. C. A. Keyser
(1) J. D. Swenson
(2) R. W. Day
(2) J. M. O'Byrne
(2) R. K. Patterson
(2) E. J. Rising (1/2)
(2) D. Sobala
(2) R. J. Trueswell
(2) A. J. Costa
(M.E. Shops)
(3) K. D. Roberts
(3) D. E. Cromack

Secy. Mrs. D. W. Klemann

Mr. L. W. Rauch
Mr. W. P. Gurski
Mr. A. T. Lozoski
Mr. I. J. Paulin
Mr. K. E. Williams
Mr. F. J. Wojtklewicz
Mr. J. L. Terrell
Mr. J. R. Toczydlowski
Mr. A. Kudrikow
Mr. B. M. Wood

CIVIL ENGR. DEPT

Com. P. M. P. White, Head *
(1) C. E. Carver (In Charge)
(1) T. H. Feng
(1) K. N. Hendrickson
(1) J. S. Marcus (1/4)
(1) E. C. Osgood
(2) W. W. Boyer
(2) T. A. Grow
(2) G. R. Higgins
(2) F. D. Stockton
(3) A. Chajes
(3) F. J. Dzialo
(3) D. B. Harris
(3) M. M. Miller
(3) S. M. Bemben *

Secy. Miss P. J. Litskoski

Engineering Library

Mrs. M. A. Kiley

(OVER)

School of Engineering
University of Massachusetts

Graduate Assistants, Teaching

Basic Engineering

J. P. Spineti
F. Smola

Chemical Engineering

W. A. Cote
W. E. Lankau, Jr.
J. P. Morin
J. V. Cuncio
A. H. Hemingway, Jr.

Civil Engineering

P. X. Bellini
A. S. Marcus
J. C. Moran
I. S. Varga
W. B. Wang

Electrical Engineering

R. C. Anderson
P. C. Badavas
R. G. Carpenter
R. H. Lamkin
T. J. Twarog
D. W. Waterman

Mechanical Engineering

A. M. Karchmer
B. V. Pawluk
L. J. Milo

Industrial Engineering

A. T. Mason

Graduate Assistants, Research

Chemical Engineering

J. C. Hamilton
R. W. Reynolds
E. S. Killian

Civil Engineering

Dan-Ho Feng

NSF Graduate Trainees

R. H. Sioui (Ch.E.)
R. Ratay (C.E.)
R. N. Millen (I.E.)

	September	1962	1963	1964
M. E.	Sr.	40	44	41
	Jr.	50	62	53
	Soph.	59	9	56
I. E.	Sr.	12	10	17
	Jr.	9	20	19
	Soph.	10	3	17
Engrg.	Soph.	--	137	--
	Fresh.	268	277	303
		834	849	900
Graduate Students		48	72	107
Pittsfield Undergrads.		48	20	13
Pittsfield Graduates		21	0	0
b. Students taught: (graduate and undergraduate)		2125	2295	3142

5. a. Publications, Research Grants, and Other Professional Activities

Chemical Engineering Department

Publications: J. W. Eldridge (with E. W. Arnold and D. W. Liou) - "Thermodynamic Properties of Isopentane," J. Chem. Eng. Data, 10, 2, 88-92 (April 1965).

K. D. Cashin - "Dropwise Condensation of Steam," paper presented at 57th Annual Am. Inst. Chem. Engrs. meeting, Boston, December 1964.

H. C. Duus - "Thermochemistry of Phosphorous Trifluoride," J. Chem. Eng. Data, 9, 4, 585 (Oct. 1964).

Research and Educational Grants:

T. McAvoy and R. J. Novak - $25,780. from National Science Foundatio for analog computer facility.

T. McAvoy - IBM Research Associateship 1965-66, $2,800.

Hercules Powder Company - $2,500. unrestricted grant.

Monsanto Company - $1000. unrestricted grant.

Fellowships for 1965-66 - NDEA (3) total $9,700. to students, $7,500. to university. NSF: 2 for $7,700 plus $5,000 to university.

Faculty Research Grants totalling $1,900.

Other Professional Activities:

K. D. Cashin - Appointed to A.I.Ch.E. National Committee Measurement (Dean Lindsey continues on it also).
- Attended Conference at University of Michigan June 19

J. W. Eldridge - Served on A.I.Ch.E. National Committee on Professional Development.

Civil Engineering Department

Papers: T. H. Feng - "Behavior of Chloramines in Acqueous Solutions," Am. Chem. Society, Aug. 31 - Sept. 5, 1964, Chicago.

A. Chajes - "Torsional Flexural Buckling," Annual Meeting of Am. Soc. of Civil Engrgs, Structural Division, Oct. 21, 1964, New York City.

W. W. Boyer - "Problems of a Large Student Chapter," sub-committee of faculty advisers during annual meeting of A.S.C.E., October, 1964, New York.

New Grants:

C. E. Carver - "A Photomicroscopic Investigation of Non-Newtonian Flow at Low Reynolds Numbers" - Contract Nonr 3357(07)

T. H. Feng - "Training Grant for M.S. Program in Sanitary Engineering," $150,000. over 5-year period. U. S. Public Health Service.

Professional Activities:

Summer Institutes Attended:

G. R. Higgins - 8 weeks at Colorado State University, Ft. Collins. Attended Fluid Mechanics Institute.

D. B. Harris - 8 weeks at University of Colorado, Boulder, Colorado. Attended institute on "Physical Horizons of Engineering".

W. W. Boyer - 8 weeks at Purdue University. Attended institute on "Geometronics".

On Leave:

M. P. White - At invitation of Polish Academy of Sciences - Sabbatical.

S. M. Bemben - Pursuing Ph.D. Degree at Cornell University.

Miscellaneous:

M. P. White, F. J. Dzialo, S. M. Bemben gave two one-week courses on "Protective Construction" at George Washington University, and the Hotel Wildermere in Chicago, sponsored by Office of Civil Defense.

K. N. Hendrickson, W. W. Boyer and T. A. Grow gave a 12 weeks course on "Highway Construction Inspection" for inspectors of the Massachusetts Department of Public Works.

Professional Society Activities:

Membership on:

Fluid Dynamics Committee
Advisory Board
Mechanical Properties of Materials Committee
(Engineering Mechanics Division, American Society of Civil Engineers)
History and Heritage of Civil Engineering Committee (A.S.C.E.)
U.S. Delegate, International Association of Materials and Structures
Chairman, Strength Evaluation of Existing Structures Committee (American Concrete Institute)
Chairman, N.E. Section, American Society for Engineering Education
Member, Executive Committee, Council of Sections, Eastern Section, (A.S.E.E.)

Professional Society Activities: (Continued)

Membership on:

Vice-President, Western Massachusetts Section, A.S.C.E.
Chairman of Committee in Protective Structures, National Academy of Sciences
Chairman of technical session at National Meeting of American Society of Civil Engineers, San Francisco
Chairman of session at RILEM Symposium on Structural Dynamics, Budapest

Electrical Engineering Department

Professional Activities:

Professor S.T. Maunder was appointed Commissioner of the Holyoke Gas, Electric, and Water Department. Professors Bett, Scott, and Herchenreder are continuing with their Ph.D. studies at Worcester Polytechnic Institute during summers. Professor Lovell was selected for the General Electric Company's Professors Conference at Louisville, Ky. in June 1965. Professor Sheckels served as Regional Chairman of the Electrical Engineering Department Heads Association. He also served on the Editorial Committee of the Journal of Engineering Education.

Mechanical Engineering Department

Grants: Professors Cromack and O'Byrne have received approval from NSF for an Undergraduate Research Participation program to cost about $11,200 over a two-year period.

Publications: R. W. Day - "Air Breathing Hydrogen-Oxygen Fuel Cell Battery Unidirectional Heat Exchangers", U.S. Patent application in process.

Research Projects: Work continues on several small internally-supported projects mentioned in last year's report. Professor Costa and his shops assisted the University faculty in designing and building research equipment.

Professional Activities:

R. W. Day - Attended a course in Modern Thermodynamics at M.I.T.
W. H. Weaver - Chairman, session devoted to "Organizing the Small Engineering Department", Annual Conference, Machine Design Division, American Society of Mechanical Engineers, New York, May 19, 1965. Also, he continued with labor arbitration activities.
J. D. Swenson - Attended program at University of Colorado 1965.
J. M. O'Byrne - Attended a two-week course in plasma physics at R.P.I.
Members of the staff served as consultants to: General Electric Company, E. D. Jones Corporation (Pittsfield), Kollmorgen Corporation, Rite-Way Corporation (Springfield), Howe Sound Corporation (Northampton).

Industrial Engineering

Publications and Papers:

1. R. W. Trueswell. "A Quantitative Measure of User Circulation Requirements and its Possible Effect on Stack Thinning and Multiple Copy Determination," American Documentation, Vol. 16, No. 1, pp.20-25, January 1965.

Industrial Engineering (Continued)

Publications and Papers:

2. R. W. Trueswell. "Determining the Optimal Number of Volumes for a Library's Holdings," a paper presented at the joint meeting of the Operations Research Society of America and the Institute of Management and Sciences, Minneapolis, Minnesota, October 7-9, 1964.

3. R. W. Trueswell. "Two Characteristics of Circulation and Their Effect on the Implementation of Mechanized Circulation Control Systems," College and Research Libraries, Vol. 25, No. 4, pp. 285-291, July 1964.

4. R. W. Trueswell. "The Library as an Inventory Problem," Paper presented at the 27th National Meeting of the Operations Research Society of America, Boston, Massachusetts, May 6-7, 1965.

Research:

Work is continuing on several projects mentioned in last year's report. Dean Rising is continuing work with Franklin County Hospital.

Grants:

Professor Trueswell was awarded a grant in June of $14,400 from NSF for research applying industrial engineering to libraries. Its title is: "Analysis of Library User Circulation Requirements."

Basic Engineering

Grants:

E. J. Rising - $8850 from U.S. Office of Education for research on "Effects of Pre-Freshmen Orientation Experiences on Academic Progress."

Professional Activities:

K. Kroner - Elected Chairman of New England Graphics Association. Selected by Town of Leverett as adviser on the planning of a regional vocational-technical school. He assisted in the preparation of a report sponsored by NSF which made significant recommendations on the teaching of graphics by engineering schools. An educational teaching aid co-authored by Dr. R. Snead of Clark University is being published by the H. E. Budek Company. This includes a text for teachers and a set of color slides on Iceland to be used in secondary school geography courses.

6. Major Accomplishments.

This was the first year the freshman class operates on a revised curriculum, which as in the past is uniform for all engineering students. In the engineering part of it there is now decreased emphasis put on development of skill in drawing and increased emphasis on the development of computation and problem solving ability including the use of digital computer. There is also some orientation to the profession of engineering now included in the course. The physics and mathematics departments have cooperated by revising the content and the organization of their part of our curriculum. The chemistry courses, as before, are well organized and continually revised.

Following a recommendation of our Long Range Planning Committee, a special organization was created to handle problems of the freshman year. The faculty teaching graphics (drawing) were transferred out of the Mechanical Engineering Department into a Basic Engineering Group directly reporting to the Dean's Office and in the charge of Assistant Dean E. J. Rising. The graphics instructors have good communication with each other as a profession (according to a recent NSF report), but communication with the rest of the engineering profession could be improved. To help this situation locally, each of the four degree-granting departments were asked to provide a man about one-fourth time to help develop the new program. The response was good and the four representatives (Mc Avoy, Harris, Scott, Day) worked conscientiously with the group. One result of this collaboration has been a set of problems suitable for freshman which are, however, typical of those found in the major fields of engineering represented at the University. Special mention should be made of the fine work of student societies--including Tau Beta Pi honorary--in the orientation. It is too early yet to tell whether this effort has improved the "dropout" ratio among freshmen, but it has been obvious that student interest has been improved.

Through its Long-Range Planning Committee, the School participated in the nation-wide survey of the Goals of Engineering Education. This study financed by several hundred thousand dollars of NSF and foundation money is expected to issue reports about the end of 1965 which will be of great significance.

The graduate program is developing. September enrollment has gone from 48 in 1962, to 72 in 1963, to 105 in 1965. Ph.D. programs were begun in September 1964 in chemical and in civil engineering with five candidates each. Next year chemical expects to have 14 and civil engineering about the same number of candidates. Most graduate students need and expect some form of support. Thanks to NASA, NSF, and the NDEA there is much increased support from federal sources. The University has also helped by providing two special fellowships and an increased number of teaching assistantships.

We have been able to make some excellent additions to our faculty--five new additions and one replacement. All of these hold the Ph.D. degree in their field or expect to have the degree by September.

6. Major Accomplishments (Continued)

For the second year in succession the Student Chapter of American Society of Civil Engineers (Professor Boyer, Advisor) was judged Number One in New England and it received its fifth straight commendation from A.S.C.E.

7. Special Projects or Programs.

The second and third extended conferences were held for two groups (25 men in 12 sessions each) of Monsanto engineers and chemists in which a special course in Modern Engineering Mathematics was given by Professors Roblee and Novak of the chemical engineering faculty.

The fifth annual Industrial Engineering Seminar was held for a group of about thirty from industry. The subject this year was operations research.

Professors White, Dziolo, and Bemben of the civil department gave two one-week courses in August on "Protective Construction" at George Washington University and at the Hotel Windermere in Chicago. These were sponsored by the Office of Civil Defense.

Professors Hendrickson, Boyer, and Grew gave a twelve-week course of "Highway Construction Inspection" for inspectors of the Massachusetts Department of Public Works. It began in February 1965.

Professor Hendrickson gave a special course for engineers of the Kollmorgen Optical Company during the fall. It was an engineering "refresher" and an introduction to optical engineering.

The third Pre-freshman Orientation Program was run in August-September 1964, directed by Professors Rising and Weidmann. A recent grant from U.S. Office of Education will enable evaluation of these. A fourth program will be operated in September 1965.

8. Future Plans and Needs

The new Addition to the Engineering Building to be known as Engineering Building - East has been finished. We will begin the installation of movable equipment about July 1. The original estimate for equipment was about $600,000. So far only $400,000 has been allotted leaving a shortage of about $200,000 for such major items as a tilting flume, a wave channel, process control equipment, etc. Inability to duplicate some minor items of laboratory equipment will force curtailment in the size of some laboratory sections. While this building will house laboratories for all the four departments, most of the office space will be occupied by the Electrical Engineering Department.

The electrical, mechanical, and industrial groups are building toward a Ph.D. program. Progress has been made toward getting the kind of staff needed. In electrical two new men with Ph.D.'s and the necessary background have been added, and three of the existing faculty have made real progress toward the doctorate at another engineering school.

8. Future Plans and Needs (Continued)

Dr. R. W. Trueswell has been appointed Acting Chairman of the Industrial Engineering Section of the Mechanical Department effective 1 July 1965. He is actively pushing the expansion of the curriculum particularly in the graduate area. Three of the staff will have doctorates and the fourth--an Instructor--will have a masters degree.

Interest in continuing education among employed engineers has grown, both locally and nationally. Much of the work is review in nature, more is directed toward specific applications and for short periods. For these and other reasons it does not fit into the regular pattern of graduate courses. We have handled the courses on an ad hoc, overload basis with a single employer taking the initiative and to sponsor it. The time has come for the University to request funds and to budget money and positions for continuing education on a regular basis. Fees should be set at a level where there will be returned at least the "out-of-pocket" costs; salaries, travel, supplies, etc. with the state and the University providing the facilities. The Schools should control the content of their program and select the staff. However, analogous to the Graduate School, some organization should be set up to handle the "red tape", publicity, scheduling, etc., and to promote interdisciplinary activity.

The faculty of the School is considering new programs to recommend to the Administration. Some would be recommended for immediate implementation. Others would be recommended for gradual adoption over the next five to ten years. These include: engineering mathematics, oceanographic engineering, aerospace engineering, fire protection engineering, nuclear engineering, engineering meteorology.

Progress has been made toward setting up an Industrial Liaison Service which would make available know-how in engineering and business administration to help industries keep up with advancing technology. It appears likely that federal funds will be available for this on a matching basis. Since February 1, Professor S. T. Maunder has been working half-time to develop this program and to find a Director. He has testified before Congress in its favor. Congressman Conte of this district has become one of the co-sponsors of the bill. The search for the Director is hampered by the low academic salary we can pay contrasted with industrial pay. However there are still some good candidates.

Respectfully submitted,

E. E. Lindsey

E. E. Lindsey

A N N U A L R E P O R T

School of Home Economics
University of Massachusetts

July 1, 1964-June 30, 1965.

Submitted by: Marion A. Niederpruem
Marion A. Niederpruem, Dean

Date: June 25, 1965

Submitted by: _____

Date: _____

I. APPROPRIATIONS

1962-63	$17,595.00
1963-64	18,720.76
1964-65	31,867.15

II. PERSONNEL

a.

RANK	Sept. 1962	Sept. 1963	Sept. 1964	
Professors (including School Head)	2	1	2	
Extension Professors	-	1	1	(12% time)
Associate Professors	4	5 (1 80% time)	6	
Extension Assoc. Prof.	-	2 (10% time)	2	(12% time)
Assistant Professors	4	4	5	(1 25% time (1 75% time (3 100% time (1 100% Research
Extension Asst. Prof.	-	1 (10% time)	1	(12% time)
Instructors	4	3	3	(1 1/6 time)
Visiting Lecturers	-	-	2	
TOTALS	14	17	22	

N. B. The Extension faculty for 1964-65 taught courses in the percentages so noted.
In the case of one Asst. Prof. position, it was split between two people -- 25% and 75%.

b. FACULTY ON LEAVE - None.

c. PROMOTIONS AND MERIT INCREASES

Merit Increases	Effective Date
Susanna Arnold	2/1/65
Ralphaella Banks	"
Gladys M. Cook	"
Jane F. McCullough	"
Nancy Myers	"
Addreen Nichols	"
Elwood F. Reber	"
Elizabeth M. Rust	"
Marjorie F. Sullivan	"

d. RESIGNATIONS

Nancy Myers
Addreen Nichols

NON-REAPPOINTMENTS

Aino Jarvesoo
Mary Troxell

e. RETIREMENTS - None.

f. NON-PROFESSIONAL PERSONNEL

	Grade No.	Sept. 1962	Sept. 1963	Sept. 1964
Secretaries				
Title:				
Principal Clerk	09	-	1	1
Senior Clk. & Steno.	07	1	1	1
Junior Clk. & Typist	02	1	1	1
Lab Asst., Others:				
Laboratory Assistant	04	1	1	1
Nursery Asst. (R.N.)	03	1	1	1
Housekeeper	03	1	1	1

h. SUPPLEMENTARY INFORMATION

Current Salary Breakdown - Professional Staff - See (A)

Current Salary Breakdown - Technical & Secretarial Staff - See (B)

Salary Breakdown

Professional Staff
Feb. 1, 1965

	Annual Salary	Source
Dean, School of Home Economics		
Marion A. Niederpruem	$18,111.60	01
Professor		
Elwood F. Reber	15,945.60	01
Associate Professor "A"		
Virginia Davis	902.20	01
(1/12 of $10,826.40)		
Elizabeth M. Rust	12,719.20	01
Helen R. Vaznaian	13,543.40	01
Associate Professor		
Gladys M. Cook	11,484.20	01
Dorothy Davis	10,826.40	01
Sarah L. Hawes	10,826.40	01
Adreen Nichols	9,500.00	01
Assistant Professor "A"		
Mary E. Lojkin	9,939.80	01
Edward K. Knapp	915.63	01
(1/12 of $10,987.60)		
Assistant Professor		
Susanna Arnold (1/4 time; $9,939.80)	2,464.95	01
Jane F. McCullough	9,939.60	01
Nancy Myers (3/4 time;$9,516.60)	7,197.45	01
Marjorie F. Sullivan	9,796.80	01
Mary D. Troxell	10,254.00	01
Instructor		
Ralphaella Banks	8,010.60	01
Aino Jarvesoo	8,109.40	01
Visiting Lecturers		
Marion G. Frazier	4,575.14	01
Barbara MacNeil	2,015.00	01

Technical Staff

	Grade	Annual Salary	Source
Laboratory Assistant			
Helen Morrissey	04	$4,347.20	02
Housekeeper			
Arline Stoughton	03	3,443.99	01
Emergency Person (1/12 of $3317.60, base)	03	276.22	02
Nursery Assistant			
Ruth G. Smith	03	3,597.44	01

Secretarial Staff

Principal Clerk			
Dorothy E. Menard	09	5,535.40	01
Senior Clk. & Steno.			
Phyllis Hendrich	07	4,391.40	01
Junior Clk. & Typist			
Patricia Wojtowicz	02	3,320.20	01
TOTAL		$204,329.22	

Total Personnel Services

01	$ 199,705.80
02	4,623.42
	$ 204,329.22

4/8/65:m

SCHOOL OF HOME ECONOMICS
UNIVERSITY OF MASSACHUSETTS

ORGANIZATIONAL PATTERN FOR SCHOOL

TEACHING-RESEARCH-EXTENSION

FOOD AND NUTRITION

Chairman - Dr. E. Reber
- G. Cook
- D. Davis
- Dr. M. Lojkin
- J. McCullough
- M. Merchant
- Dr. E. Rust
- H. Wright
- Graduate Assistants

TEXTILES, CLOTHING AND ENVIRONMENTAL ART

Acting Chairman - Dr. M. Niederpruem
- S. Arnold
- V. Davis
- S. Hawes
- A. Jarvesoo
- R. Johnston
- M. Troxell

MANAGEMENT AND FAMILY ECONOMICS

Chairman - Dr. A Nichols
- V. Dale
- B. Higgins
- E. Knapp

HUMAN DEVELOPMENT

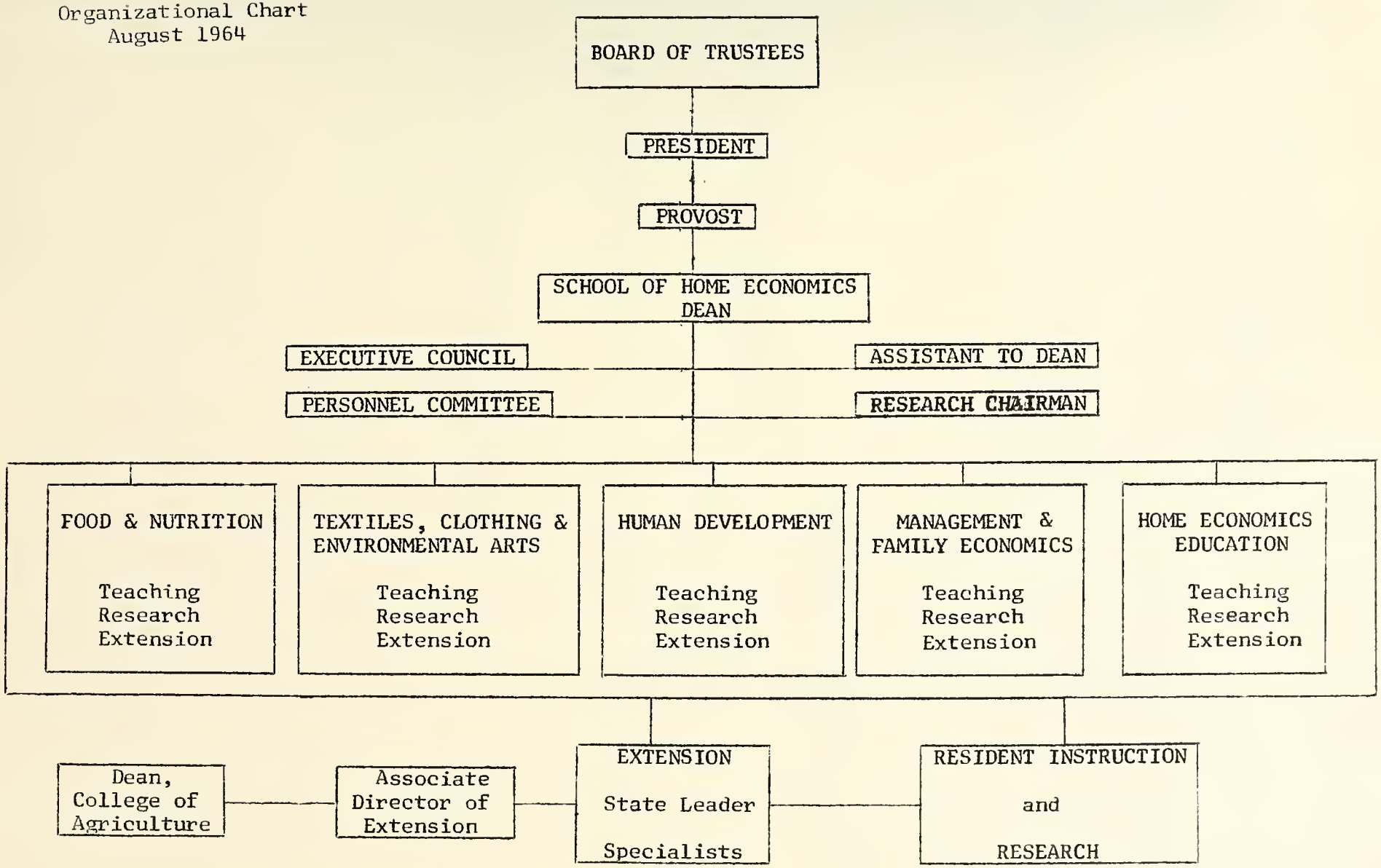
Chairman - Dr. N. Myers
- R. Banks
- J. Burroughs
- M. Frazier
- B. MacNeil
- R. Smith

HOME ECONOMICS EDUCATION

Acting Chairman - Mrs. M. Sullivan (Sept. 1964 to Feb. 2, 1965)
Chairman - H. Vaznaian (Feb. 2, 1965)
- W. Eastwood
- Graduate Assistant

8/64:w

Organizational Chart
August 1964



IV. STUDENTS

		Sept. 1962	Sept. 1963	Sept. 1964
a.	Number of majors, undergrad.	141	177	213
	Number of majors, graduate	8	6	7

		1962		1963		1964	
		1st	2nd	1st	2nd	1st	2nd
b.	No. students taught each sem. (undergrad. & graduate)	384	361	428	574	559	644
	No. of non-majors	142	146	130	223	118	252
	No. courses offered	18	19	26	21	26	27

c. Current data on enrollment figures (C)

SCHOOL OF HOME ECONOMICS UNDERGRADUATE ENROLLMENT

FALL 1961 -- FALL 1964

Fall Semester 1961-62

Freshman		- 26
Sophomore		- 34
Junior		- 26
Senior		- 30
	Total	116

Fall Semester 1962-63

Freshman		- 37
Sophomore		- 32
Junior		- 40
Senior		- 28
	Total	137

Fall Semester 1963-64

Freshman		- 62
Sophomore		- 44
Junior		- 35
Senior		- 36
	Total	177

Fall Semester 1964-65

Freshman		- 74
Sophomore		- 63
Junior		- 40
Senior		- 33
Special Students		- 3
	Total	213

Percentage of Increase - Fall 1961 to Fall 1964 ---- 45.5%

10/21/64:w

V. FACULTY PUBLICATIONS, RESEARCH GRANTS, RESEARCH PROJECTS, AND OTHER PROFESSIONAL ACTIVITIES.

RESEARCH GRANTS AND PROJECTS

Mrs. Aino Jarvesoo, University Teachers Grant. (2)

1962-63	$300.
1964-65	$508.

Title: (2) A Study to Reorient Art Teaching in Home Economics.

To find explanations for consumers' attitudes toward art. To discover factors that influence layman's art appreciation and art buying habits.

A survey concerning the art buying habits of middle-class families in a limited New England geographical area.

Dr. Mary E. Lojkin, National Institute of Health Grant, 1963-1964: $7200. Extended 1964-65, $7200.

Title: Tryptophan metabolism and requirement for pregnancy.

Dr. Mary E. Lojkin, Purchasing & Contracting Office, U.S. Army Natick Laboratories.

Title: Compilation of a Russian-English Technical Dictionary of Food and Nutrition Terms.

Dr. Addreen Nichols, Faculty Research Grant; 1964-65, $425.

Title: The Influence of Task Delegation on Daughters' Attitudes about Feminine Roles.

RESEARCH GRANTS AND PROJECTS (contd)

Dr. Elwood F. Reber, Army Medical Research & Development Commission; 1964-65, $8,250.

Title: Publication of an annoted bibliography on the wholesomeness of irradiated foods.

Dr. Elwood F. Reber, Atomic Energy Commission; 1964-65, $44,000.

Title: Determination of the wholesomeness of radiation pasteurized clams.

Dr. Elwood F. Reber, Faculty Research Grant, 1964-65, $1000.

Title: Protein Evaluation of fish.

Dr. Elizabeth M. Rust, Faculty Research Grant; January 1964 - December 1964; $1000. Extended to June 30, 1965.

Title: The influence of several alkaline phsphate solutions on moisture absorption and flavor on reheated beef.

OTHER PROFESSIONAL ACTIVITIES

The following faculty attended and participated in professional meetings as follows:

Mrs. Susanna B. Arnold - Annual Conference, College Teachers of Textiles & Clothing, Eastern Region; Charlotte, N.C.

Ralphaella Banks - Conference on Infant Development, Merrill-Palmer Institute of Human Development & Family Life, Detroit.

Joseph D. Burroughs - Biennial Meeting of Society for Research in Child Development, Minneapolis, Minn.

Mrs. Gladys M. Cook - Western Massachusetts Dietetic Association Meeting, Holyoke, Mass.

Western Massachusetts Dietetic Association Meeting, West Springfield, Mass.

Western Massachusetts Dietetic Association Meeting, Northampton, Mass.

Western Massachusetts Home Economics Meeting, Amherst.

OTHER PROFESSIONAL ACTIVITIES (contd)

Mrs. Gladys M. Cook - Conference of Extension and Food & Drug Administration, Boston.

Massachusetts Home Economics Association Meeting, Framingham, Mass.

Dorothy Davis - Grocery Manufacturers Association Food Forum, New York City.

Western Massachusetts Home Economics Association Meeting, Springfield, Mass.

Lecture-Demonstration, Berkshire Gas Co., Deerfield.

Massachusetts State Home Economics Meeting, North Falmouth, Mass.

Virginia Davis - Annual Conference, College Teachers of Textiles & Clothing, Eastern Region; Charlotte, N.C.

Sarah L. Hawes - Annual Conference, College Teachers of Textiles & Clothing, Charlotte, N. C.

Visitation - Weeks, Meadowbrook, South and Newton High Home Economics Departments, and Newton City staff.

Dr. Mary E. Lojkin - 49th Meeting of the Federation of American Societies for Experimental Biology, Atlantic City, N.J.

Canadian-U.S. Conference on Nutrition, Toronto, Canada.

Mrs. Jane F. McCullough - New England Hotel and Restaurant Show, Boston.

49th National Hotel and Motel Exposition, New York City.

Eastern Territorial Meeting of Food Service Executives Association, Syracuse, N.Y.

Dr. Addreen Nichols - Association of Land-Grant Colleges and Universities Annual Meeting, Washington, D.C.

American Home Economics Association Workshop "Working with Low-Income Families", Chicago, Ill.

Dean Marion A. Niederpruem - Moderate panel discussion of Massachusetts Home Economics Association and Eastern Massachusetts Home Economics Association, Boston.

Public Relations & Communications Committee, American Home Economics Association, Washington, D.C.

Association of Land-Grant Colleges and Universities Annual Meeting, Washington, D.C.

National Retail Merchants Association Convention, New York City.

North Atlantic Regional Home Economics Administrators Meeting, College Park, Md.

Massachusetts Home Economics Association Meeting, Framingham, Mass.

American Home Economics Association Annual Conference, Atlantic City, N.J.

Dr. Elwood F. Reber - Northeast Section, Institute of Food Technologists, U. S. Army Natick Laboratories, Natick, Mass.

49th Annual Meeting of Federation American Societies for Experimental Biology, Atlantic City, N.J.

Annual Meeting of the Animal Care Panel, New York City.

International Conference on Radiation Preservation of Foods, Boston, Mass.

U.S. Atomic Energy Commission Food Irradiation Contractors' Mtg., Washington, D.C.

Dr. Elizabeth M. Rust - Institute of Food Technology, Kansas City, Mo.

OTHER PROFESSIONAL ACTIVITIES (contd)

Mrs. Marjorie Sullivan - High school recruitment talks at Pittsfield, Northfield, Greenfield.

Lecture-Demonstration, Berkshire Gas Co., Deerfield.

Massachusetts Home Economics Association Meeting, Framingham, Mass.

Mrs. Mary D. Troxell - National Retail Merchants Association Meeting, New York City.

Helen R. Vaznaian - Served as consultant for Newton Public Schools and Harvard University/Newton Educational Project.

Massachusetts Home Economics Association Meeting, Framingham, Mass.

VI. MAJOR ACCOMPLISHMENTS

Work on Five-Year Developmental Plan:

On June 1, 1964, the School of Home Economics presented a Five-Year Plan to the President for the development of the five subject matter areas in the School of Home Economics. In the ensuing year, the faculty worked very hard on their short and long range plans. This included changes and developments on the undergraduate and graduate levels; accelerating research activity; and greater depth of educational programs in the Extension area. Considerable progress has been made in all these facets of the plan. It will, however, require a great deal of concentrated effort to continue to develop the three functions of teaching, research and extension in all five subject matter areas.

The new curricula in the School of Home Economics continues to evolve. New courses in the curricula were offered for the first time during 1964-65. This took considerable innovation and development for the first year of experimentation of these courses.

New Faculty Manual of Policies & Procedures of the School of Home Economics:

The Executive Council of the School of Home Economics worked on a New Faculty Manual of Policies and Procedures for the School of Home Economics. Various committees worked on this and evolved policies and procedures for the numerous activities that go on within the School. In some instances, new policies and procedures were developed; in others, the standing ones were updated. This will give every faculty member a clear picture of how the School functions, and should prove a very efficient tool. Copies of this manual will be submitted, when completed this summer, to the administration.

New Personnel Committee:

The faculty of the School of Home Economics voted to develop a Personnel Committee for the School. This was done September 1964. The policies and procedures for this committee are attached.

Recruitment Activities: Report attached.

UNIVERSITY OF MASSACHUSETTS

INSTITUTE ON TEAM TEACHING

Sponsored by

The School of Home Economics and The School of Nursing

Skinner Hall - Auditorium

January 25 and 26, 1965

Monday, Jan. 25, 1965

Presiding: Miss H. Constance Mather, Chairman
Faculty Development Committee, School of Nursing

10:00-11:30 TEAM TEACHING IN THEORY

Henry F. Olds, Jr.

11:30-12:00 General Discussion

12:00-1:00 Luncheon - University Faculty Club

1:15-2:15 TEAM TEACHING FROM THE TEACHER'S POINT OF VIEW

Henry F. Olds, Jr.

2:15-3:00 General Discussion

Tuesday, Jan. 26, 1965

Presiding: Miss Winifred Eastwood, Professor
School of Home Economics

10:00-11:30 THE STUDENT, THE CURRICULUM, AND THE ADMINISTRATION

Henry F. Olds, Jr.

11:30-12:00 General Discussion

12:00-1:00 Luncheon

1:15-2:15 THE ORGANIZATION AND OPERATION OF A TEAM: STRATEGIES AND PROBLEMS

Henry F. Olds, Jr.

2:15-3:00 General Discussion

N.B. Dr. Olds feels he will be of greatest help in exploring jointly with the faculty of both Schools, questions which pertain to their particular interests and concerns in Team Teaching.

UNIVERSITY OF MASSACHUSETTS
SCHOOL OF HOME ECONOMICS

Personnel Committee

STATEMENT OF PERSONNEL COMMITTEE POLICIES AND PROCEDURES.

Section I - University Policy.

1. Excerpts from University Board of Trustees Policy 63-050 (Approved November 9, 1962):

"It is the policy of the Board of Trustees of the University of Massachusetts that all personnel actions involving the professional staff of the University of Massachusetts should be recommended only after appropriate consultations have been held. Each member of the professional staff shall receive a full, fair, informed, and impartial consideration based on his qualifications and experience. This consideration will include an evaluation of his teaching, research and service contributions to the University and the Commonwealth..... The Dean of each College or School should have an executive committee or a personnel committee whose duties will include the review of the cases of all candidates for promotions, merit raises or tenure and the recommendation of policy to the Dean. The Dean shall retain full authority to recommend or not to recommend to the Provost. All recommendations made by a departmental personnel committee or a department head and not approved by a subsequent reviewing authority, shall be forwarded to the Provost indicating the reasons for the disapproval..... It is the right of every member of the professional staff to discuss with his department head his own situation with respect to salary, merit raises, promotion or tenure. Following this, he may if he wishes, discuss the situation with his academic Dean. He also has the right to go to the Provost, to the President, and finally to the Committee on Faculty and Program of Study of the Board of Trustees."

2. Excerpts from the Provost's Policy Statement on Appointments, Promotions, Tenure Appointments, Merit Salary Increases and Terminations. (Mimeo dated Sept. 10, 1964):

"(The) advisory process is intended to insure a well-rounded evaluation by numerous minds devoted to the ideal of maintaining high professional standards for the University..... The dean of each college or school shall have an executive committee or a college personnel committee whose duties will include the review of all candidates for promotion, merit raises, tenure or termination..... The members of the committee will be elected by secret ballot. The college or school personnel advisory committee will meet with the dean and make recommendations on promotions, tenure appointments, merit increases and terminations. The dean shall retain full authority to recommend or not to recommend to the Provost. However, if he does not follow the recommendations of the college or school personnel committee, he should explain in writing to the Provost. All evaluations and recommendations emanating from departmental personnel committees, department heads, deans and college personnel committees will be forwarded to the Provost for review. He will then make his recommendations and review these recommendations with the President before personnel actions are presented to the Board of Trustees..... The same policies and procedures shall be followed in the case of new appointments to the faculty, including review and recommendations by the departmental advisory personnel committee, except that the proposed new appointment need not be referred to the college or school personnel committee in those colleges organized in departments."

Section II - School Policies and Procedures.

1. To implement the purposes and policies cited in Section I, the School of Home Economics will have an elected Personnel Committee which will represent the faculty and serve in an advisory capacity to the Dean. The elected Personnel Committee will have continuing responsibility for personnel review and will make recommendations to the Dean whenever appropriate for personnel actions and policies that will enhance the growth and development of the professional staff and of the School.

2. The Personnel Committee of the School of Home Economics will consist of five elected members. Any School of Home Economics faculty member of the rank of assistant professor or above, excluding the Dean and members of the Dean's Executive Committee, shall be eligible for election to serve on the Personnel Committee. All members of the faculty of the School of Home Economics shall be eligible to vote for members of the Personnel Committee. Regular elections will be conducted prior to September 1 annually by the incumbent Personnel Committee, using mail ballots. Election shall be by majority vote of the faculty members voting. Regular tenure of office shall commence on September 1st. In September 1964, after voting to have an elected Personnel Committee of five members, the faculty elected two committee members to serve for three years each, two members to serve for two years each, and one member to serve for one year. Commencing in September 1965, committee members will be elected to serve for three years each, except that any special election called by the incumbent Personnel Committee to fill an unexpired vacancy shall be for the duration of the unexpired term only. All members of the elected Personnel Committee shall be eligible for re-election.

3. The Personnel Committee will elect its own Chairman and Secretary, each to serve for one year and each eligible for re-election.

4. The peer-evaluation function of the Personnel Committee may require the Committee's obtaining pertinent information directly from individual faculty members and/or from other available sources. The Committee will develop its procedures for evaluating the professional stature of the individual faculty member; his teaching and/or research competence; his scholarly creativity; and his contribution to the School and the University, in accordance with existing policies of the School and of the University.

5. All official recommendations of the elected Personnel Committee shall represent at least the majority opinion of the members of the Committee.

6. All proceedings of the Personnel Committee shall be confidential and shall not be communicated to anyone other than the Dean except by the unanimous agreement of the Committee. Minutes of the Committee shall be regarded as confidential and will be distributed only to members of the Committee. A file of minutes, correspondence and other relevant documents shall be kept by the secretary who will transmit the cumulative file to his/her successor. The Committee expects that its confidential communications to the Dean will be used for her advice and information and not to provide chairmen or heads of departments with a basis for their recommendations. The elected Personnel Committee will function separately from and independently of the Dean's Executive Committee.

7. It shall not be the function of the elected Personnel Committee to serve as a grievance committee, and no courtlike function will be provided by which the Committee could adjudicate grievances. In any grievance matters which may happen to come to the attention of the Committee during the normal course of its performance of its authorized evaluative and advisory functions, the Committee will act exclusively as a fact-finding body whose function will be to advise the Dean when information obtained is at variance with personnel action pending or taken.

8. The elected Personnel Committee will maintain an "open door" policy which will permit it to meet with any individual faculty member who may desire to discuss with the Committee any matter relevant to the Committee's jurisdiction, provided that the faculty member submits a written request for such a meeting and presents, at the time of the meeting with the Committee, a written brief of the pertinent facts of the matter in question.

9. Any changes, revisions, amendments, and/or additions to Section II of this Statement of Personnel Committee Policies and Procedures will require a majority vote of the faculty of the School of Home Economics.

Respectfully submitted by
The Personnel Committee:

Susanna B. Arnold, Member
Edward K. Knapp, Member
Harriet J. Wright, Member
Gladys M. Cook, Secretary
Joseph D. Burroughs, Chairman

April 26, 1965

:h

SCHOOL OF HOME ECONOMICS
UNIVERSITY OF MASSACHUSETTS

SUMMARY REPORT ON RECRUITMENT
Academic Year, 1964-1965

I. Nature of Recruitment Activities

In addition to the interviewing, correspondence, and office procedures involved in recruiting freshmen and transfer candidates, a number of specific activities have been executed to create, promote or sustain interest and awareness of the wide range of professional opportunities made available to the graduates of the School of Home Economics, University of Massachusetts, Amherst. Specifically, these activities have included:

A. Career Assemblies and Programs

Date	Location	Audience	Number	Responsibility Assumed By
Oct. 15	State College, Worcester	Grad. Course, Guidance	47	M. Sullivan
Oct. 16	Univ.Mass. Campus	State Mtg.,F.H.A.	300	M. Sullivan
Oct. 22	Hampshire County Advisory Council, Extension Service	Members	9	Extension Personnel
Oct. 29	Northampton,Hawley Junior High Sch.	Upper Div.,College Prep., 9th Grade	60	Extension Personnel
Oct. 30	Pittsfield Senior High Sch.	Berkshire County Teachers Convention	32	M. Sullivan
Nov. 5	Greenfield Junior High Sch.	Eighth Grade, Top Level	18	M. Sullivan
Nov. 10	Northfield Regional High Sch.	P.T.A. Mtg., Parents & School Personnel	35	M. Sullivan
Dec. 3	Florence,Kennedy Junior High Sch.	All levels, 8th Grade	97	Extension Personnel
Dec. 3	Florence,Kennedy Junior High Sch.	All levels, 9th Grade	90	Extension Personnel
Apr. 23	Greenfield,4-Corner Sch.	4-H County Dress Review-Girls & Parents	350	M. Sullivan
April	Winchester High Sch.		750	Extension Personnel
and	Cambridge High Sch.		150	Extension Personnel
May	Topsfield High Sch.		75	Extension Personnel

B. State Level Meetings.....4-H Functions

		Number Present
March 20 --	4-H Leaders' Conference - Careers for Youth Miss Vaznaian, Keyspeaker--"Why Be Concerned? The Challenge - Present and Future"	250
May 15 --	4-H Student Achievement Day, Amherst "Careers in Home Economics" and Tour of Skinner Hall - Miss Vaznaian, Marylin Haley	25 Students
June 28 --	4-H State Leaders (1 week) "Careers in Home Economics"	80 Students

C. Open House, May 8, 1965, for all members of the Class of 1969, their family and friends.

1. Theme: Expanding Horizons in Home Economics
   (See program attached .... appendix)

2. Number in attendance: 82 Freshmen; total 243 persons

D. Special Mailings of "Careers in Home Economics" Materials

1. To 250 Secondary School Principals and Directors of Pupil Personnel Services

2. To all County Extension Agents in Massachusetts

II. Report of Admissions to the Class of 1969, School of Home Economics.

The following data is as reported to the faculty of the School of Home Economics, April 29, 1965.

A. Number of students accepted 174

B. Number of student withdrawals 35

C. Summary of breakdown: Predicted cum

1. Total Accepted 139

2.7 and up	7	)
2.4 - 2.6	25	) Major Range
2.0 - 2.3	68	)
1.8 - 1.9	33	
1.7	6	
	139	

D. As of June 24, 1965, of the 139 students accepted for admission to the School of Home Economics, 107 have paid the University fees. This latter figure is significant in that it is indicative of the extent to which we can speculate future enrollments: i.e. about 75% of those accepted in the spring will complete enrollment procedures and payments for the fall semester.

III. Recommendations

1. That continued effort be made to enlighten educators and Guidance Personnel of the significant changes in Home Economics Education, and of the many career opportunities which accrue to the graduates of the School of Home Economics.

2. That a careful assessment of all recruitment procedures and activities be made. Policies for the future relevant to recruitment should be formulated in the light of these findings.

3. That a four-year study be conducted of the members of the Class of 1969. The study should involve the following data about each student:

   a. Class standing

   b. Verbal and Math scores achieved on the S.A.T.'s

   c. Predicted cum as determined by the Admissions Office

   d. Major field in Home Economics

   e. Faculty adviser

   f. Grades received at the end of each semester; the cumulative average achieved. The data should be analyzed at the end of each year for significant findings.

Respectfully submitted

Helen R. Vaznaian
Assistant to the Dean

6/24/65:h

VII. SPECIAL PROJECTS AND PROGRAMS.

The School of Home Economics cooperated with the School of Nursing for an Institute on Team Teaching during the interim period on January 25 and 26. This program was initiated in order to provide an opportunity to discuss the team teaching method and to investigate the possibilities of using it more effectively in our teaching of college courses. A copy of the program is attached. It was a successful venture.

Improvement of present faculty

Several types of activities must be carried on in order to try to improve and rehabilitate present faculty. The faculty that were inherited and who have tenure and who have been here a long time, need to be rehabilitated. Several different types of activities are being planned to bring this about: (1) Continuation of a faculty seminar by Miss Helen Vaznaian. This program is designed to improve the content of courses and teaching methods. The first faculty seminar program was carried on Spring 1965. The second program will start September 1965 and carry on through the academic year. The majority of the faculty will be working in this seminar and there is already evidence that the first one was highly successful in initiating certain changes of attitude and behavior. Needless to say, this is a slow process and must continue over a longer period of time. (2) Each staff member has been encouraged to plan and implement a program for professional development. This is to be in the form of studying and taking courses. Sabbatic leaves are being encouraged for studying purposes. It is hoped that the weak faculty members can be encouraged to go to institutions where there is high caliber teaching on the undergraduate and graduate levels to take courses for one or two semesters, (3) Faculty members are requested to make out course outlines for the courses they teach. These are shared by all faculty members, especially through department meetings. It is hoped that a review of course outlines by the members of an area will help each faculty member to clearly identify the content and teaching methods of each course, and perhaps gain from suggestions or comments made by other faculty members in relation to their work. It is hoped that there will be some improvement in teaching of the courses by the use of this technique.

VI. [illegible]

[illegible]

[illegible]overnment of [illegible]

[illegible]

VIII. FUTURE PLANS AND NEEDS.

New Personnel and Sufficient Rank and Salary to Attract Same:

It is not only necessary to secure new positions for the School of Home Economics, but also it is vital that we have sufficient rank and salaries to attract people to our faculty. The market in Home Economics is so tight that we are not getting people to come to our School because we are not offering them enough rank or salary to make it worthwhile. Their present situations are better than we are offering and our competition is doing much better than we are in attracting people with better ranks and salaries.

The situation is so critical in our School that we are not staffed adequately for Fall 1965. We have not been able to fill positions because of the facts mentioned above. A great deal of time, effort and money has been spent in trying to attract people to our School--but to no avail. This coming academic year, 1965-66, must be spent in an all-out effort to attract new personnel, but it will do no good unless we change to a policy of offering more rank and salary. The recruiting situation in Home Economics is not typical of the recruiting setup in such areas as History, English, and other subjects where there are a number of candidates available, and the rank and salary can be kept down to the minimum.

Our School of Home Economics is in a critical stage of its development. We must get outstanding people to bolster up the weak faculty members which were inherited and who have tenure. In most instances these people are beyond rehabilitation and have to be carried as a burden to the School. They are not competent and are not able to produce effectively. We have lost at least 10 bright young undergraduate women this past year because our course work was not challenging enough -- they transferred out of the School of Home Economics. We must bring in good teachers to counteract this situation.

When we have secured top personnel in the five subject matter areas, we can then -- and only then -- afford to secure additional personnel, to meet enrollment figures, that are of average caliber, and by this I mean they would accept average salaries and ranks. This however is in the future and not our immediate need. Therefore I will restate our greatest need -- to be able to secure new personnel at ranks and salaries above average. New positions will also be necessary to accommodate increased enrollment.

New Laboratories

New Laboratories are needed to accommodate the course work that we are offering in our new programs. The following rooms need to be renovated and equipped:

Room 119 - completely renovated and equipped for use as an Environmental Arts Laboratory;

Room 4 - renovated for use as a Nursery School Laboratory;

Room 217 - completely renovated and equipped for use as a Nutrition Laboratory;

Room 17 - completely renovated and equipped for use as an Home Economics Education Laboratory.

These additional laboratories are needed to meet class and research needs in the areas of Human Development; Home Economics Education; Textiles, Clothing and Environmental Arts; and Nutrition. Currently these rooms are used as classrooms and none of these rooms are equipped to meet the specific course and research needs as listed above. We are not able to teach effectively without the proper laboratory facilities. Our research activities must be expanded to meet our graduate and undergraduate needs for laboratory work. In the case of Human Development -- there are so many Child Development majors (71, Spring 1965) that we cannot take care of them in their practice teaching with the present two sessions. Third and fourth sessions in another laboratory must be available in the academic year, 1965-66.

Increased undergraduate activities due to enrollment increases, and increasing undergraduate course work and research activities by faculty will necessitate greater use of all current and projected new facilities.

New Addition to Present Building

If the present building is to be taken over for a science or office building, a new building would be necessary. If the present building remains for Home Economics use, then an addition to Skinner Hall will be necessary by 1968.

If an addition is to be built, then the current building will have to be renovated to some degree as expansion in all five subject matter areas is needed. Present facilities for all areas is now inadequate. Plans need to be made for more laboratories and special classrooms in both Skinner Hall and an addition. Some areas will be expanded in Skinner Hall; others will be moved to the new addition.

Description: New Building - Design of a structure of an architectural style compatible with other University buildings, containing approximately 120,000 sq. ft. for year-round utilization. Functional requirements include classrooms, laboratories, offices, facilities for extension services, and a laboratory nursery school. Dependent upon the result of design studies, it may be found advantageous to construct a laboratory nursery school as a separate building. Materials, surface finishes and equipment are to be selected for maximum economy consistent with durability and functional requirements. An addition to the present building would have these same features.

Need: Since Sept. 1961 (3 years), the School of Home Economics has had an 88.8% increase in enrollment. It is anticipated that the fall class of 1965, which will be the Class of '69, will be between 125 and 150. This gives us increases as follows: Freshman class of Sept. 1961 (26); Sept. 1962 (37); Sept. 1963 (62); Sept. 1964 (84); Sept. 1965 (125-150). If we maintain at least 125 new freshmen every year, we will have 500 majors in the School of Home Economics as of 1968. As of Sept. 1961, we had 116 majors. This would give us an increase of 300%. Along with the increase in service courses and those electing to take our courses, our class enrollment figures will be such that we cannot handle the situation in the present building. Therefore, under the pressure of increased enrollments, expanding research activities, and more comprehensive extension work, the present space and facilities (Skinner Hall and the Homestead) will be greatly overtaxed beginning in the academic year, 1965-66.

Additional Professional Staff

It will be necessary to secure five assistant Nursery School teachers for running two more sessions of the laboratory nursery school. This is necessary in order to accommodate the number of student teachers who need 200 hours of work in student teaching in a laboratory nursery school. The ratio of one student teacher to four children must be maintained in order not to overwhelm the children and

make teaching ineffective. There are 16 children in attendance at each session. Two teachers at each session are needed and a fifth teacher is needed to replace the Director of the Nursery School from her current session so that she is free to supervise the four sessions, the student teachers, and the eight assistant nursery school teachers. At the present time we have three assistant teachers and a Director manning our one morning and afternoon sessions. Each assistant nursery school teacher works for only a morning or afternoon session. That is why so many teachers are needed. The two morning sessions must run concurrently as must the two afternoon sessions. Each assistant nursery school teacher can be secured for the sum of $2015 (31 weeks at $65/week).

Additional Clerical Assistance

In order for the School to function properly and the faculty to be effective, additional clerical assistance is greatly needed. This has been delineated in budget requests and special attention should be given to this matter.

6/25/65:m

The Commonwealth of Massachusetts
University of Massachusetts
Amherst

School of Home Economics
Office of the Dean
Tel. 413-545-2391

s Office of your acceptance
University of Massachusetts
me for you, completing your
college years ahead. We
arrival next fall with

se hold one date open for
ich is Open House here at
invite you and your parents
from two to four o'clock
a fine opportunity to meet
students and with fellow
re will be ample time for
s; about campus life.

ur acceptance and our
sincere good wishes for happy and successful college years ahead.
WELCOME TO THE SCHOOL OF HOME ECONOMICS.

Cordially yours

Marion A. Niederpruem

Marion A. Niederpruem, Dean
School of Home Economics

N:h

Program of Events

2:00 - 4:00 P.M.

The Commonwealth of Massachusetts
University of Massachusetts
Amherst

School of Home Economics
Office of the Dean
Tel. 413-545-2391

REGISTRATION — Skinner Auditorium, Ground Floor

TOUR OF THE SCHOOL OF HOME ECONOMICS — Skinner Hall
- The Nursery — Room 5, Ground Floor
- The Arts — Rooms 118 & 119
- Foods and Nutrition — Second Floor
- Fashion Merchandising — Room 300

RECEPTION: Dean Marion A. Niederpruem — First Floor, Lounge

CAREERS IN HOME ECONOMICS — Second Floor, Room 217
A Time to Inquire .....
Moderator: Mrs. Marjorie Sullivan
assisted by Mrs. Susanna B. Arnold, Miss Ralphaella Banks,
Miss Dorothy Davis and students in the School of Home Economics.

THE ORCHARD HILL COMPLEX
A New Concept in Dormitory Living

It is with great pleasure that we welcome you to the
SCHOOL OF HOME ECONOMICS

's Office of your acceptance
University of Massachusetts
.me for you, completing your
college years ahead. We
arrival next fall with

ase hold one date open for
hich is Open House here at
invite you and your parents
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WELCOME TO THE SCHOOL OF HOME ECONOMICS.

Cordially yours

Marion A. Niederpruem

Marion A. Niederpruem, Dean
School of Home Economics

N:h

The Commonwealth of Massachusetts
University of Massachusetts
Amherst

ol of Home Economics
Office of the Dean
el. 413-545-2391

April 26, 1965

We are delighted to hear from the Registrar's Office of your acceptance in the freshman class of 1969, entering the University of Massachusetts next September. This must be an exciting time for you, completing your high school education and preparing for the college years ahead. We share in your excitement and anticipate your arrival next fall with pleasure.

In your busy spring schedule, would you please hold one date open for us.....Saturday, May 8, 1965.....which is Open House here at the School of Home Economics. We cordially invite you and your parents to join us for tea and punch that afternoon from two to four o'clock in Skinner Hall Lounge. This will give you a fine opportunity to meet with your future faculty, with some of our students and with fellow members of the entering freshman class. There will be ample time for tours of the building, questions about majors; about campus life.

Again, our warm congratulations to you on your acceptance and our sincere good wishes for happy and successful college years ahead. WELCOME TO THE SCHOOL OF HOME ECONOMICS.

Cordially yours

Marion A. Niederpruem

Marion A. Niederpruem, Dean
School of Home Economics

N:h

ANNUAL REPORT
June 30, 1965
Bureau of Government Research
University of Massachusetts

I. TOTAL APPROPRIATIONS (excluding 01 and 02 personal services)

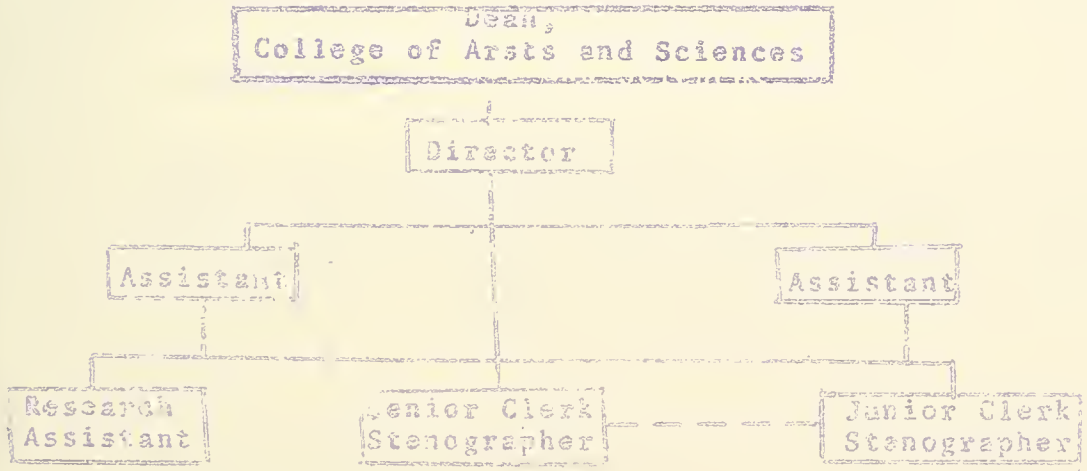
1962-63	1963-64	1964-65
$5,275	$6,785	$6,350

II PERSONNEL

	Director	Ass't Director	Statistician	Senior Clerk & Stenog.	Junior Clerk & Stenog.
Sept 1962	1	2	1	1	1
Sept 1963	1	1	1	2	1
Sept. 1964	1	2	1	1	1
	(Acting Head)				

Staff:
Professor William C. Havard, Acting Head
Edwin A. Gere, Jr., Assistant Director
Dr. Robert A. Shanley, Assistant Director
Carmen D. Saso, Research Assistant
M. Carolyn Savoie, Senior Clerk & Stenographer
Nancy Tulenko, Secretary

III ORGANIZATION CHART



Solid Line -- Immediate Supervisor
Broken Line -- Intermediate Supervisor

IV. CLIENTELE

Students

a. Government majors instructed by Bureau Personnel:
September 1962 (80) September 1963 (100) September 1964 (45)

b. Number of students taught (majors and others):
September 1962 (107) September 1963 (130) September 1964 (50)

During 1964 the assistant directors in the Bureau taught approximately 150 students in Government 63 (Political Parties)-2 sections and Government 78 (Municipal Administration) in addition to their regular Bureau service activities (publications, conferences, workshops, research, public speaking, and technical assistance to local government officials and civic organizations throughout the Commonwealth).

Other Clientele

In its efforts to improve the public service in Massachusetts and to resolve some of the Commonwealth's outstanding state and local government programs, the Bureau regularly sponsors a series of conferences and workshops in cooperation with other state and municipal organizations. These conferences include: the Governor's Conference on State-Local Relations; the Massachusetts Highway Officials Workshop; the Public Welfare Workshop, the Annual School for Assessors and the School Committee Seminars. Approximately 800 people attended these conferences in 1964.

V. PUBLICATIONS

Massachusetts Town Expenditures, 1963
Assessment Administration in Massachusetts (Proceedings of the Ninth Annual Assessor's School)
Intergovernmental Challenges in New England (Problem areas in state-local relations and new approaches to intergovernmental relations in New England) (in press)

ARTICLES

"Massachusetts Presidential Nominating Procedures" in Presidential Nominating Procedures in 1964: A State by State Report, National Municipal League.

"The Potential of Federal-State Cooperation in New England" in Intergovernmental Challenges in New England

RESEARCH IN PROCESS

Constitutional Revision in Massachusetts
Case Study in Forming a Regional Planning District (the development of the Lower Pioneer Valley Regional Planning District)

VI. MAJOR ACCOMPLISHMENTS IN 1964-65

During 1964 progress was made toward a closer coordination of the program and staff of the Bureau of Government Research and the Government Department. This development has been felt to be mutually beneficial, particularly in terms of strengthening public service programs and in the optimum use of staff for research and teaching purposes. Under this arrangement it is expected that the Bureau will be transferred from the Provost's office to the College of Arts and Sciences. Bureau personnel who have been contributing one third of their time to teaching in the Government Department without academic rank are vitally interested in the proposal concerning their appointment to academic rank in the Government Department.

In 1964 the Bureau built its staff up to full complement once again. After a nationwide search the Bureau is proud to announce the appointment of Dr. Irving Howards, former Director, Public Affairs Research Bureau of South Illinois University, to be the new Director of the Bureau starting September 1, 1965. In addition, we are pleased to report the recent appointment of Miss Carmen D. Saso, as research assistant. Throughout most of 1964 the Bureau operated under almost half staff complement. That all the regular Bureau functions were accomplished in addition to teaching duties without sacrificing our efforts towards quality-we feel to be a major accomplishment.

VII. SPECIAL PROJECTS AND PROGRAMS

Upon the President's request Bureau personnel provided supplementary economic data to Booz, Allen and Hamilton Company for the site selection report on the State Medical School. Bureau men also acted as consultants to the Southbridge and Wilbraham Town Government Study committees. They appeared on television and radio programs and in public forums discussing various topics including constitutional revision and the states tax problems. Lastly, Bureau personnel also were participants in state, regional and national governmental conferences, including the American Political Science Association, the Tufts Assembly on Public Education in Massachusetts, Municipal Finance Officers Association of the United States, Conference of New England New Jersey Bureaus of Government Research, the Massachusetts League of Cities and Towns and the Massachusetts Selectmen's Association.

VIII. FUTURE PLANS

It is anticipated that the research and service functions of the Bureau will be expanded significantly in the coming year. The Bureau library is being pruned of such material that might be placed more appropriately in Goodell Library. It is also expected that the Bureau Newsletter will be resumed in the near future.

The East Experiment Station, one of the oldest buildings on the campus, has housed the Bureau since 1956. Periodically repairs are needed. Currently some of the offices are being replastered and eventually interiors will be repainted. Some of the older damaged desks and chairs have been replaced with more modern furniture, but more furniture replacement are still necessary. In addition, better lighting facilities are also a serious need in some of our offices.

June 15, 1965

From: Graduate Office, Edward C. Moore, Dean

To: Mr. Robert McCartney, Secretary of the University

Subject: Annual Report, Fiscal 1965

This report covers the areas of activity for which the Graduate Dean is administratively responsible. These are:

a.) Graduate Program

b.) Research Council

c.) University Research Computer Center

d.) Department of Computer Science

e.) The University Press

f.) The Water Resources Research Center

g.) The Office of Research Services

1.) Annual Appropriations. Annual appropriations for these operations in Fiscal 63, 64 and 65 were as follows:

	63	64	65
Graduate School:			
Operating Budget	32,274	41,062	59,434
Graduate Assistants	130,300	373,600	475,000
Research Council			
Faculty Research Grants	25,000	50,000	75,000
Faculty Growth Grants	0	10,000	10,000
Massachusetts Review	10,000	10,000	10,000
University Computer Center	33,406	41,560	55,509
Department of Computer Science	5,304	13,296	22,342
University Press	0	0	60,000
Water Resources Research Center	0	0	52,295
Office of Research Services	0	27,855	34,993
Total	236,284	567,373	854,573

2.) Personnel

	Sept. 1962	Sept. 1963	Sept. 1964
Graduate School			
Administrative	1	1	2
Clerical	2	3	6
University Computer Center	4	5	9
Department of Computer Science	0	1	2
University Press	0	0	1
Water Resources Center	0	0	0
Office of Research Services	0	3	3
Total	8	13	23

3.) Graduate School Organization Chart

See following page

GRADUATE SCHOOL ORGANIZATION 1964 - 1965

Coordinator of Research — Edward C. Moore, Dean — Dean of the Graduate School

Arthur C. Gentile, Asst. Dean — Meredith A. Conyea, Asst. to the Dean

WATER RESOURCES RESEARCH CENTER

Dr. R. Damon
Acting
Director

OFFICE OF RESEARCH SERVICES

Mr. G. Good
Glassblower

Mrs. Sally
Jekanowski
Secretariat

Mr. A. King
Electrician

UNIV. MASS. PRESS

Mrs. L. Barron
Director

Mr. W. Wiljamen
Acct. & Promotion

Mrs. B. Ellis
Designer

GRADUATE SCHOOL OFFICE

Mrs. E. Cadigan
Principal Clerk

Miss M. Everson
Admissions Officer

Mrs. D. McHaffie
Jr. Clerk, Research

Miss M. Riley
Jr. Clerk, Admissions

Miss L. Rimbold
Jr. Clerk, Admissions

Miss S. Rokosnik
Jr. Clerk, Admissions

Mrs. Z. Stewart
Jr. Clerk, Admissions

RESEARCH COMPUTING CENTER

Dr. J.A.N. Lee
Acting Director

Mr. Sidney
Rubenstein
Oper. Manager

Mr. F. Mirabello
Oper. Assistant

Mr. E. Osbourne
Oper. Assistant

Mr. T. Sullivan
Oper. Assistant

Miss E. Weaver
Sr. Stat. Oper.

Mrs. Y. Klimek
Keypuncher

Mrs. C. Shaw
Keypuncher

Miss V. Dihlmann
Junior Clerk

Mrs. I. Gurski
Senior Clerk

COMPUTER SCIENCE PROGRAM

Dr. J.A.N. Lee
Head, Assoc. Prof.

Mr. J. Goda
Instructor

LIBRARY AUTOMATION PROJECT

Mr. G. Binby
Project
Leader

Mr. James
Sokoloski
Programmer

Mrs. K. Wysk
Keypuncher

4.) Students or clientele served in the various branches of this office are:

a.) Graduate School:

	Fall Enrollment		
	1962	1963	1964
	975	1303	1849

Admissions Data

Period	Inquiries Received	Applications Processed	Refused	Accepted
May 63 to May 64	7,690	3,331	793	2,021
May 64 to May 65	11,077	4,633	1,350	3,005

b.) Research Coordinator

	1964	1965
Faculty Research Grants Processed	82	93
Faculty Growth Grants Processed	17	17
Sponsored Research Applications Processed	126	188

5.) Publications and professional activities:

Edward C. Moore

a.) Books:

Studies in the Philosophy of Charles Sanders Peirce, Edited by Edward C. Moore and Richard H. Robin. The University of Massachusetts Press, 1964

William James, Edward C. Moore. The Washington Square Press, 1965

b.) Journals: The Charles S. Peirce Society has inaugurated a new journal in American Philosophy and I have been appointed editor.

c.) Professional activities:

In December of 1964, I chaired a panel of Eastern Division of the American Philosophical Association on the Philosophy of Charles S. Peirce.

In May 1965, I was a member of a panel at the New England Conference

on Graduate Education at Dartmouth. Dean Perry Miller, of Yale and I discussed "Tuition Requirements for Graduate Study."

In April 1965, I was invited to appear at Mt. Holyoke College in their Philosophy Lecture Series. This marked the first appearance of a philosopher from the University of Massachusetts on this series.

In May 1965, I was invited to Texas A and M to give a Graduate Lecture in philosophy and, on the following evening, the Phi Kappa Phi address.

In May 1965, I was appointed to the Executive Committee of the Division of Graduate Work of the National Association of State Universities and Land Grant Colleges.

6.) Major accomplishments during 1964-65.

a.) Graduate School

1.) During the year 1964-65, 315 advanced degrees were given of which 36 were at the doctoral level. The record for the last five years is as follows:

	1961	1962	1963	1964	1965
Doctoral	15	26	31	27	36
Master's	152	196	176	229	279
Total	167	222	207	256	315

2.) New doctoral programs approved during 1964-65 include: Ph. D. in Physics, Ph. D. in Mathematics, Ph. D. in Agricultural Engineering, and a Four-College Ph. D. in Philosophy. This brings the number of doctoral programs to twenty-eight. New Master's programs in Labor Studies and Computer Science bring the number of Master's programs to forty-seven.

3.) Graduate School enrollment increased by a figure of 546. Enrollment for the last three years was:

1962	1963	1964
975	1303	1849

4.) The University received 43 NDEA Fellowships to rank 28th in the nation in the number of such fellowships received.

5.) A University Fellowship program covering forty fellowships in the amount of $2500 each was instituted this year.

6.) With the increased federal and state fellowships, the University fellowship and assistantship picture has materially improved. In 1964-65, only 70 fellowships were available. Two were from industrial funds and sixty-eight from federal funds. In 1965, we have commitments for 171 fellowships; 126 are from federal funds, 42 from state funds and 3 from industrial funds.

b.) Research Coordinator

Active research and training grants

	1961	1964	1965
Number of Grants	121	231	327
Total funds	$509,655	$5,000,096	$7,267,659

c.) University Research Computer Center.

On March 10, 1965, a new high-speed digital computer, a Control Data Corporation 3600 was installed. Efforts are presently being undertaken to develop an appropriate staff. This computer is in addition to the IBM 1620 computer.

d.) Computer Science Program.

In 1963-64, approximately 500 students enrolled in computer science courses. In 1964-65, over 830 students took such courses.

Partly in response to this increased demand a Computer Science instructional program is being developed. Dr. J.A.N. Lee will head up the program. On June 14, 1965, the Board of Trustees approved an Inter-disciplinary curriculum leading to an M.S. in Computer Science.

e.) The University of Massachusetts Press.

The Press currently has eight publications. These books with sales to date for each volume are as indicated:

Title	Sales	On Hand
1.) The Curious Quire	489	2
2.) The Talkative President	725	1038
3.) Studies in the Philosophy of C.S. Peirce	520	1434
4.) Twelve Birds	512	395
5.) Bibliography of Mental Illness	390	1300
6.) Symphonies of Ralph Vaughan Williams	315	1113
7.) Cary: History of the University	1100	800
8.) Transactions of the C. S. Peirce Society (Published two weeks ago) Subscriptions:	40	643
Total	4091	6725

f.) The Water Resources Research Center.

By vote of the University of Massachusetts Board of Trustees and by designation of the Governor of Massachusetts, the University established a Water Resources Research Center on the Campus on February 4, 1965. The Center has been designated as the agency in the Commonwealth to receive the Federal Funds available under Public Law 88-379, The Water Resources Research Act of 1964. An initial

allotment of $52,300 was received for Fiscal 65. The principal objectives of the Center are to conduct basic, developmental, and applied research relevant to water resources and their efficient use and to stimulate the development of curricula and research programs within the framework of the Graduate School to provide professional workers with advanced training for the water resources fields.

The operation of the Center is the responsibility of a Director, who reports to the Dean of the Graduate School. The Dean and Director are assisted by an Advisory Committee made up of representatives of State and Federal Agencies, Industry, and the University faculty. It is the purpose of this Committee to be concerned with matters of policy and program in the area of water resources and to insure coordination and integration of the program of the Center with Industry and with State and Federal programs. In addition, a University Committee has been formed as a policy recommending body for the Center as well as to insure on-campus coordination of research.

The development of a research program has been initiated by delineating four principal areas of research. These areas of concentration are hydrology, water quality, management and development of water resources, and agricultural use of water. Eleven research projects have been funded in these areas and are being conducted in the Departments of Sanitary Engineering, Civil Engineering, Agricultural Engineering, Geology, Zoology, Forestry and Wildlife Management, Chemistry, the Agricultural Experiment Station, and the Institute of Agricultural and Industrial Microbiology.

Combined with research projects already being conducted on the Campus supported by other funds, this new undertaking gives the University a wide-range research program in the field of water resources. It is anticipated that through increased allotments and matching grants funded through the Office of Water Resources, Department of Interior and other funding agencies, that the University will have an outstanding research and training program which will be of great benefit to the Commonwealth of Massachusetts as well as the Nation.

7.) Special projects.

No special projects were undertaken by the graduate school this year. Our total effort was necessary to keep abreast of our on-going responsibilities.

8.) Future plans and needs.

The future plans of the Graduate School include a Graduate Research Center in the Physical Sciences which may go to construction in January of 1967 and may be completed by 1970. Unfortunate delays, due primarily to a lack of experience on the part of the architectural firm, mean that a great many plans predicated on the original completion date of 1967 will have to be scrapped.

Due to strong support from the Provost, a library program involving the following items is well under way:

a.) A new and greatly expanded book purchasing program.

b.) A new graduate-research library tentatively to go to construction in 1967.

c.) A library automation project to bring the library within the scope of computer techniques at both administrative and user levels.

In the area of graduate fellowships and assistantships great improvement has been made this year, primarily because of the forceful support supplied by the Provost. If this expansion can be continued, the graduate program can reach a satisfactory level of performance on these items.

The efficiency of operation in the graduate office has decreased markedly during the present year. We are now taking in approximately as many new students each year as comprised the total graduate school when a full-time graduate dean was appointed. In other words, we are taking in one new graduate school each year. The burden at both the administrative and clerical level was nearly intolerable this year. The addition of Meredith Gonyea, as assistant-to-the-dean, added a great deal to the effectiveness of the operation. With her very able assistance, we managed to just barely escape total breakdown in our office procedures. The work load on the clerical staff was accomplished only because of superior performance on the part of the whole group of clerks, most of whom put in many hours of over-time at no extra pay in order to keep on top of the job.

The addition of Dr. Arthur Gentile as Assistant Dean next year should enable us to develop a number of programs on the research side of the operation which have been totally neglected until now. Unfortunately, the addition of Miss Gonyea and Dr. Gentile adds additional secretarial burdens upon an already overworked clerical staff. The need for additional clerical staff is immediate and imperative if the graduate school is to restore an appropriate level of efficiency.

Several personnel have had to be appointed because of resignations this year. A very real and highly professional level of service has been provided in finding new people by Mr. Cummings and Mr. DeWyse. Through the efforts of

Mr. Grady, both the duplicating service, under Mr. Cornish, and the mailing service, under Mr. Utley, have greatly improved. These services have lessened our burden very much.

A second area in which we have been greatly handicapped has been in the increasing loss of autonomy in our operational decision-making. When the graduate operation was smaller, the dean had a good deal of internal freedom in making decisions in terms of his detailed knowledge of the various areas of his responsibility. As the operation has grown in size and complexity, it has come increasingly to the attention of higher echelon administration. The response has been primarily to increase the number of controls with the square of growth so that the whole operation may shortly grind to a halt.

This restraint is particularly great on the fiscal level where, after decisions are made in this office, they must again be argued for and justified to non-academic persons on the fiscal side of the operation. The result is a great deal of time and effort - I estimate 40% of my personal time - spent in trying to get action - and not always getting it - on matters having to do solely with the internal operation of the graduate school where the decision-making has been pre-empted by what should be administrative service operations.

The same arguments which apply for fiscal autonomy for the University in its relations to the state apply, *mutatis mutandis*, for each school in its relations to the University. I have just submitted a budget for Fiscal '67. It is a first-order mistake to assume that this budget - submitted before I even have Fiscal '66 appropriations - is anything more than a broad general plan within which considerable re-adjustment will be made by me each month during Fiscal '67. A great deal of leeway should be allowed each dean if he is to really use his funds in a manner providing for the best economic use

of them. These decisions cannot be made by the Treasurer's Office because they do not have the intimate knowledge of the operation which I acquire in day-to-day dealings with it and because they do not have the professional competency in the mores of a graduate program which is a pre-requisite for being a graduate dean.

A further area of concern has to do with the increasing lack of participation of this office and of the other academic deans in the decision-making process at the policy level. Great concern is currently being exhibited to increase the power of the Faculty Senate. A corresponding concern for an effective Dean's Council would now seem appropriate. Such an organization should serve to bring the experience and such wisdom as may be present among the deans into a focus that would be useful prior to final decisions by the President and the Board of Trustees and might serve as a useful counterpoise to the Faculty Senate.

Policy decisions of concern to the Graduate School are also made without the opinion of the Graduate Dean being sought. Whether this is oversight or because his opinion is not considered as likely to be helpful is not clear. A decision to allow graduate work in U Mass/Boston was not referred for my opinion, and, since no graduate work is being planned there, some decision was made not to offer it, without the Graduate School being involved. The decision to support the recommendation of the Willis Commission that the University be the sole doctoral degree granting institution was made without my having yet been asked for an opinion. There is apparently a committee at work on a program of continuing education which will surely be largely at the post-baccalaureate level, but all I know about it is a few rumors. The effect of the medical school and its benefits to the graduate program could have been developed as part of the corpus of material for the Board of Trustees, but the Graduate Office was never asked to consider this matter.

I have heard of a committee working on the possibility of an Industrial Park. Apparently the Coordinator of Research is not to be involved in this. Other instances could be cited.

The graduate effort by the federal government is going to receive increasing emphasis and support. Without the Willis report, the graduate program at the University will grow significantly. With the Willis proposal, the Medical School, and the U Mass/Boston, the graduate effort will easily become forty per cent of the University's total effort. With the Graduate Dean's involvement in both the graduate program and research program, a more intimate integration of this office into the total operation is essential if this growth is to proceed in an orderly fashion.

A N N U A L R E P O R T

UNIVERSITY HEALTH SERVICES

Robert W. Gage, M.D. Director

1964-65

University of Massachusetts
Amherst, Massachusetts

I. FINANCIAL SUMMARY

	1962-63	1963-64	1964-65
A. Appropriation	$288,991(1)	$321,100(1)	$395,800(1)
401 Salaries, permanent positions	203,877(2)	254,347(2)	298,710(2)
403 Wages, misc. personnel	5,750	2,500(3)	2,500(3)
404 Food	6,400	1,600(5)	5,350(5)
406 Housekeeping supplies	5,700	6,600	2,150(3)
407 Medicine & lab supplies	24,000	35,100	38,500
410 Travel	2,200	2,900	2,400
414 Administration	5,200	3,600(4)	6,200
415 Equipment	1,700(6)	----(6)	6,000(6)
Other accts: Clothing, Repairs, Printing Refunds, Perm. Reserve	34,164	14,453	33,990
Total Appropriations	288,991	321,100	395,800
B. Total Expenses	248,253(8)	295,625(8)	366,550(8)
C. Balance Carried Forward (needed for July-August expenses)	40,738	25,475	29,250(7)

(1) Includes balance from previous year.

(2) Does not include: retirement contribution, health insurance contribution, and assistance from other sources.

(3) Does not include assistance from other sources.

(4) Does not include telephone charges.

(5) Does not include credit at University Boarding Halls.

(6) Some additional equipment from other sources.

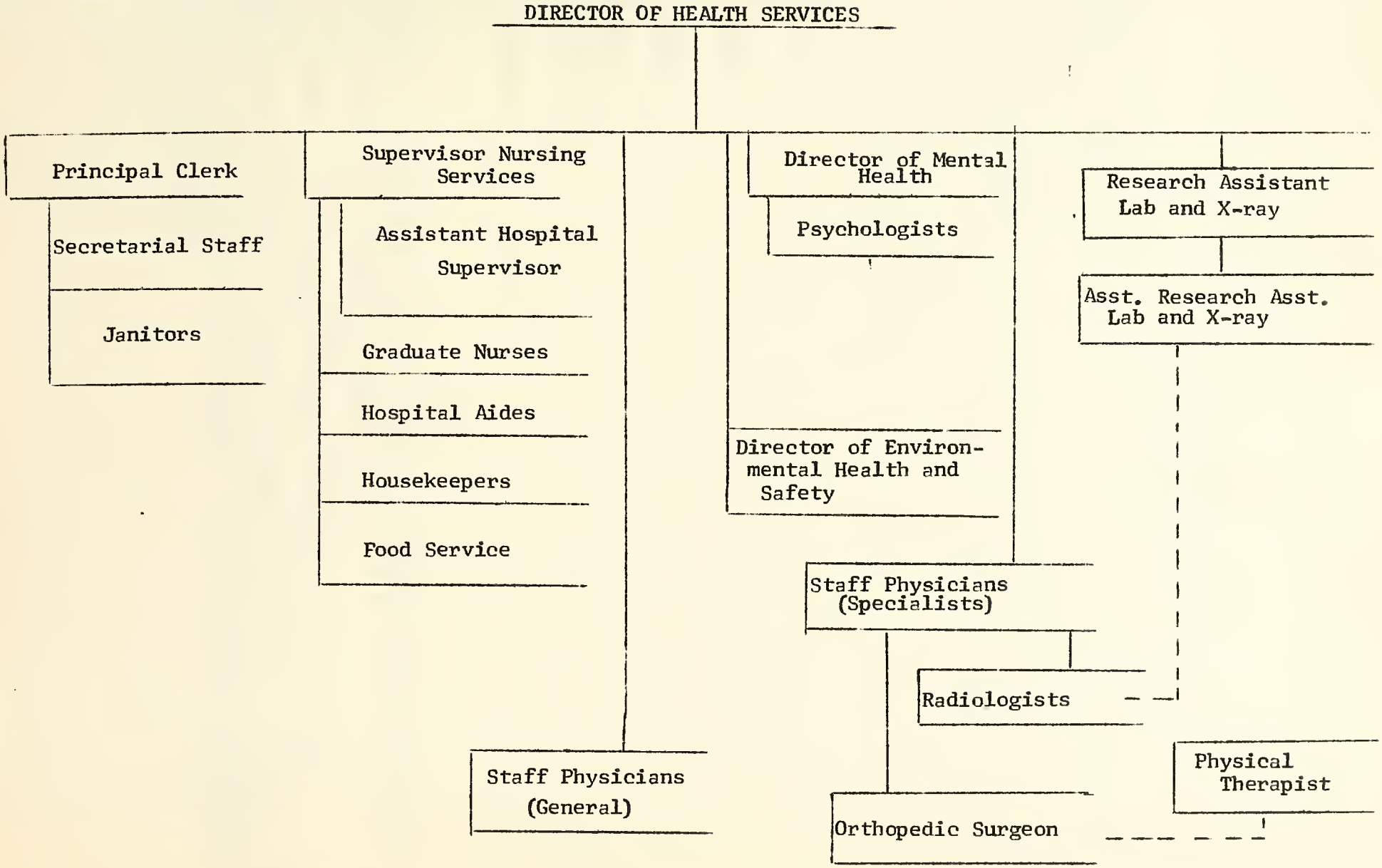
(7) Estimated 6-1-65

(8) Not included in operating expenses are: maintenance of the building, utilities (heat, light, water, sewer), and amortization of cost of building and original equipment.

II. PERSONNEL

(A) Professional Staff	1962-63	1963-64	1964-65
Director, University Health Services	1	1	1
Staff Physicians, full time	3	4	5
Staff Physicians, part time (specialists)	4	4	4
Consultant in Medicine	1	-	-
Director, Mental Health	1	1	1
Principal Psychologist	1	1	1
Clinical Psychologist	-	1	1
Director of Environmental Health & Safety	-	-	1
Nurse Counselor	1	-	-
Supervisor of Nursing Services	-	1	1
Supervising Physical Therapist	1	1	-
(B) Ancillary Service Staff			
Research Assistant (Lab & X-ray)	1	1	1
Research Assistant (Lab), part time	1	1	1
Research Assistant (X-ray)	-	-	1
Physical Therapist	-	-	1
(C) Nursing Staff			
Hospital Supervisor	1	-	-
Assistant Hospital Supervisor	1	1	1
Graduate Nurses (Full time)	3	3	3
Graduate Nurses (Part time)	11	14	7
Graduate Nurses (Full time, 9 mos.)	-	-	7
Hospital Aides (Full time)	3	4	1
Hospital Aides (Full time, 9 mos.)	-	-	4
Hospital Aides (Part time)	1	1	2
(D) Secretarial Staff			
Administrative Secretary	1	1	-
Principal Clerk	-	-	1
Medical Secretary	2	4	5
Junior Clerk-Stenographer	1	-	-
Junior Clerk-Typist	1	-	-
Medical Records Clerk	-	1	1
Secretary, Part time	2	1	1
(E) Food Service Staff			
Head Cook (Full time, 9 mos.)	1	1	1
Cook	-	-	1
Assistant Cook (Full time, 9 mos.)	2	2	2
Assistant Cook (Part time)	-	1	-
Kitchen Helper	2	2	-
Kitchen Helper (Part time)	1	2	2
(F) Maintenance Staff			
Janitor	2	2	2
Janitor (Part time)	1	1	2
Housekeeper (Full time)	2	2	1
Housekeeper	2	2	-
Housekeeper (Full time, 9 mos.)	-	-	4

III. Organization Chart



IV. UTILIZATION OF SERVICES

	1961-62	1962-63	1963-64	1964-65
A. Students Enrolled (1)	7,018	7,676	8,811	10,400
B. Services rendered (estimated for June 1965)				(2)
I. Outpatient visits				
2 regular semesters	27,711	33,705	40,183	47,500
summer sessions	2,868	2,102	265	2,552
Total July 1 - June 30	30,579	35,807	40,448	50,052
II. Mental Health Department				
Visits, individual	1,287	1,856	2,616	2,665
Group Therapy (patient hours)			121	827
III. Laboratory				
Number of determinations	6,685	9,236	12,411	17,250
IV. X-ray Services				
Number of patients	1,086	1,231	1,742	2,300
V. Physical Therapy				
Number patient visits	1,642	2,875	2,473	3,423
VI. Inpatient Services				
Bed Patients - total	1,074	1,269	1,777	1,950
Patient days in Infirmary	3,288	5,072	5,582	6,500
VII. Administrative Services (3)			2,682	4,780

NOTES

(1) Includes: undergraduates and graduates, including special and part-time students, some of whom are not eligible for care by Health Services. Estimated number of students served: 9,800

(2) All figures in these columns include extrapolation for June 1965.

(3) Administrative Services: recorded separately beginning in 1963-64. This includes an enumeration of significant communications concerning student problems, evaluations for modification of school program, referrals from administrative officers, etc. It includes many services previously recorded as OPD visits.

V. FACULTY PUBLICATIONS AND PROFESSIONAL ACTIVITIES

ALLEN, DEAN A., Ph.D.

Publications

"A Study of the Outcome of Psychotherapy in a University Mental Health Service." With Julian F. Janowitz, M.D. JOURNAL OF THE AMERICAN COLLEGE HEALTH ASSOCIATION, Vol. 13, pp. 361-378, 1965.

Other Professional Activities

Chairman, Orchard Hill Evaluation Committee

Abstracter for JOURNAL OF COLLEGE STUDENT PERSONNEL

Moderator, Panel Discussion, New England College Health Association Meeting, December, 1964 (at University of Massachusetts)

GAGE, ROBERT W., M.D.

Publications

"What a Comprehensive Student Health Plan Provides." COLLEGE AND UNIVERSITY BUSINESS." Vol. 37, No. 3, September, 1964.

Other Professional Activities

Chairman, New England College Health Association

Executive Committee, American College Health Association

Board of Governors, Massachusetts Chapter, American Academy of General Practice

Research Committee, Massachusetts Academy of General Practice

Medical School Liaison Committee, Massachusetts Chapter, American Academy of General Practice

Medical-Dental Subcommittee, Special Commission on Radiation Protection, Commonwealth of Massachusetts

HAVENS, JOSEPH D., Ph.D.

Publications

"Memo on Religious Implications of Consciousness-Changing Drugs." JOURNAL FOR SCIENTIFIC STUDY OF RELIGION, Vol. III, No. 2 pp. 216-226, 1964.

"Contribution to a "Symposium on Christianity and Buddhism." JAPANESE RELIGIONS, Vol. 4, No. 1, December, 1964.

"The College Student and His Religion." THE CHURCH REVIEW, Vol. XXIII, Nos. 1,2, February-April, 1965, pp. 19-22.

JANOWITZ, JULIAN F., M.D.

Publications

"A Study of the Outcome of Psychotherapy in a University Mental Health Service." With Dean A. Allen, Ph.D. JOURNAL OF THE AMERICAN COLLEGE HEALTH ASSOCIATION, Vol. 13, pp. 361-378, 1965.

Other Professional Activities

Committee on Academic Education, New England Chapter, American Psychiatric Association

MC BRIDE, THOMAS C., M.D.

Research Grants and Projects

"A Study of Chronic Disease Among College Students" (not published). University of Massachusetts Faculty Research Grant #TR-F25-64-(1).

PETERS, HOWARD A., Ph.D.

Research Grants and Projects

"Study of Staphylococcal Food Poisoning." University of Massachusetts Faculty Research Grant #FR-W11-65-(1).

SCHOENBERGER, HENRY B., M.D.

Research Grants and Projects

"A Study of a System for Coding and Recording Outpatient Diagnostic Data in Anticipation of Factor Analysis by Digital Computer." University of Massachusetts Faculty Research Grant #FR-V11-65-(1).

SNOOK, GEORGE A., M.D.

Publications

"Notes Concerning the Independent Companies in King Philip's War." MILITARY COLLECTOR AND HISTORIAN, Vol. XVI, No. 3, p. 74, Fall, 1964.

"A Scalpel Blade For Removing Degenerated Articular Cartilage." JOURNAL OF BONE AND JOINT SURGERY, Vol. 46A, No. 8, p. 1764, December, 1964.

"Paget's Disease as Differential Diagnosis in Sciatica." With O. Donald Chrisman, M.D. and Harry R. Walker, M.D., CLINICAL ORTHOPEDICS AND RELATED RESEARCH, No. 37, pp. 154-159, November-December, 1964.

"British Navy, 1704-1714." Article accompanying painting by Eric I. Manders, Plate #256, MILITARY UNIFORMS IN AMERICA, copyright 1964 by the Company of Military Historians.

"Lateral-Flexion Neck Injuries in Athletic Competition." With O. Donald Chrisman, M.D., Joseph M. Stanitis, and Victor A. Keedy, R.P.T. JOURNAL AMERICAN MEDICAL ASSOCIATION, Vol. 192, No. 7, pp. 613-615, May 17, 1965.

VI. ACTIVITIES

A. Health Care

Providing health care for students has continued to be the main responsibility of the University Health Services. During the four preceding years, there had been a consistent increase in utilization by students of the health care services provided in both the Outpatient Department and the Inpatient Unit. Outpatient care, which is the greatest single element of our services, apparently has leveled off during the past year at approximately five visits per student per year. Because of the increase of student body, however, the total amount of service provided has increased considerably, crowding the outpatient wing to its functional limit. Inpatient care likewise has maintained a relatively stable relationship to the student population.

There has been no readily discernible and noteworthy trend in the illnesses prevalent among the student population. The Rubella epidemic of last year has subsided and streptococcal infections have not been unusual in number.

Once again, on the advice of the U. S. Public Health Service, we have not undertaken any program for widespread use of influenza virus vaccine for either students or faculty; and, for the second year in succession, there have been no cases of illness for which a firm diagnosis of influenza could be established.

One interesting question raised among the medical staff during the past year has concerned the propriety of requiring isolation for patients with Rubella. There is a strong feeling among many members of the medical profession that young people should be encouraged in their exposure to Rubella in order to induce widespread immunity prior to the childbearing period. After considerable discussion, both among ourselves and with representatives of other college health services, we have decided that at least for the present we are committed to continuing the present policy of isolation of clinically recognized cases. This decision is based upon our reluctance to contribute to the exposure to this disease of an unknown number of women in the early months of pregnancy (nearly 50% of the student body comprises women, many of them married). Also, we are concerned for the acceptance by the public, both on campus and at home, of the unconventional practice of allowing persons with an observable communicable disease to be at liberty in the community. The recent report of recovery of Rubella virus from patients several weeks after clinical recovery presents us with a more imperative challenge to our policy. For the present, however, we have decided to remain conservative, a decision dictated for practical purposes largely by our concern for public relations.

The activities of the Mental Health Department have continued to grow in an imaginative manner in order to meet the needs of the rapidly growing student body. Unfortunately, for budgetary reasons, it was impossible to add a staff member to the Mental Health

Department during the past year. Faced with a demand for an increasing amount of professional help for individuals, the Department has experimented with different lengths of therapy sessions. In addition, there has been a more energetic utilization of the techniques of group therapy for selected types of patients. This use of group therapy has been carried out in part as a contribution to a project undertaken in cooperation with the University of Kentucky. The results seem encouraging at this time.

In spite of the increasing demand for individual consultation, the members of the Department have devoted an increasing amount of time to preventive mental health activities. These have taken the form of (1) consultations and group meetings with heads of residence, (2) regular meetings with other university student personnel workers on a biweekly basis. These meetings have been directed toward catalyzing action on housing, faculty academic advising program, standards and regulations for guiding students in dropping courses, withdrawing from school, etc.

In addition, members of the Department have met regularly with personnel workers from other institutions in the four-college group for presentation and discussion of student personnel problems of common interest.

Possibly one of the most specifically useful activities of the Department during the year was the formulation of a statement concerning the significance of college dropouts. Presented initially as a statement for discussion within the University among personnel and academic staff, it was refined and proposed for circulation among the guidance counselors of Massachusetts high schools. A modified version was also sent to parents of all UMass students in a parents' newsletter. In essence the statement emphasized that dropping out was not necessarily a mark of failure, but that it could be utilized as a guide to positive action either in reorienting students to other lines of training or endeavor, or in providing through the perspective of personal experience a remotivation for return of school at a later date.

Once again the Department of Mental Health has been able to offer a practicum training of one semester in clinical psychology for a doctoral condidate in the Department of Psychology.

We are extremely fortunate in having unusually competent, as well as readily available, x-ray and laboratory services. As anticipated, the growth of these activities has been at a rate somewhat more rapid than that of outpatient services in general. Whereas the student population during 1964-65 increased by somewhat less than 20 per cent over the previous year, x-ray services increased by approximately 28 per cent, and laboratory determinations by approximately 36 per cent. It has been possible to provide continuously superior x-ray and laboratory services only through the continued devotion and ingenuity of the personnel in these departments. See Appendix III for detailed x-ray and laboratory report.

B. Environmental Health and Safety

Without doubt, the most important single step in the development of the program of the University Health Services during the past year has been the creation of the position of Director of Environmental Health and Safety. An active concern for the increasing problems of sanitation on the campus, coupled with increasing responsibilities for the nuclear energy control officer (working previously on a strictly part-time "voluntary" basis), led directly to the creation of this position.

This opportunity was seized to establish a comprehensive area of responsibility related to environmental health and safety. The purpose was defined as reflecting "recognition by the University that, as the community increases in numbers and in density of population and as the industrial and research activities proliferate, the environmental hazards to members of the community increase in number and become more serious. The aims of the University can be served properly only if the members of the community and their environment are adapted to each other in a mutually helpful, safe, and productive relationship."

The general statement of duties was outlined "to plan, supervise, administer, coordinate, and carry out service, educational, and research functions in the areas of sanitation, industrial hygiene, radiation health, and safety as they relate to students, faculty, and employees of the University or to others who are participating in or observing any aspect of the University program or activity." In the area of sanitation, responsibility was anticipated concerning food services, housing, swimming pools, rodent and insect control, waste disposal, water supply, and epidemiological problems. In all areas of responsibility, it has been stipulated that there should be concern for development of educational programs and planning of research, as well as for an involvement in direct service functions.

We have been extremely fortunate in appointing to this position Howard A. Peters, Ph.D., a recent graduate of the School of Public Health of the University of North Carolina. Although he has been here only since late November, 1964, Dr. Peters has proved to be an extremely resourceful and valuable member of our staff.

C. Health Education

Again this year there has been an increasing call on the part of students for health information services, sometimes stipulating the particular areas of interest and sometimes indicating an interest in general health information. We are anxious to encourage this inquiry by responding in a timely and effectual manner.

Many of the individual health interests of students can be met at the time of individual consultations in the outpatient clinic but this means, because of limitations of time and lack of systematic contact, we can meet only a very small proportion of need. The most effectual means of meeting these needs has been in voluntary meetings in the residence halls, which members of our staff have attended upon invitation. The availability of an excellent movie, on the subject

of venereal disease purchased by the Audio-Visual Center at the beginning of the year, has been a considerable help and has outlined the need for additional audio-visual aids. It is hoped that each year one or two additional films can be purchased to reinforce this vital activity. In response to a specific request of the student residence counselors, an organized attempt was made to present very much abbreviated first-aid instruction, this also by invitation. There were several calls for this educational service. It was sufficiently well received and provided sufficient satisfaction to warrant looking forward to an expansion of the program during the next year.

D. Research

Research activities during the past year have consisted of the conclusion and publication by one of our staff, in cooperation with the Student Health Service of Amherst College and the Department of Intercollegiate Athletics of the University and of Amherst College, of a study concerning neck injuries in football.

With the assistance of a Faculty Research Grant, a study has been initiated of a means of coding and recording diagnostic and other data from the Outpatient Department in a means suitable for recording and analyzing by a digital computer. It will be a tremendous help to have a relatively simple and uniform means of tabulating and recording the vast amount of information concerning the health of students which can be stored systematically by this means for use at a later date. The Faculty Research Grant will allow us to proceed with this project, for which we would be reluctant to use funds from Student Health Fees.

In addition, our laboratory has been engaged in research projects with the Medical Technology students of the Department of Public Health. Involvement in this has been a stimulating experience for the laboratory personnel. We hope it has been profitable, likewise, for the students.

E. Staff

We have been extremely fortunate this year in appointing to our staff several members who have added a considerable increment to our resources available for providing a wide variety of services. Dr. Henry B. Schoenberger, who joined us as Staff Physician after eleven years in general practice, has contributed great energy and a keen critical imagination to our professional lives. As previously mentioned, Dr. Howard Peters, Director of Environmental Health and Safety, has added an especially important dimension to our work. The Accident Survey, which he is beginning in cooperation with the American College Health Association, may be one of the most significant activities in which the University Health Services has been engaged.

One of our greatest concerns is for the advancement of the level of proficiency and acuity of our professional staff. In this regard, a special word is in order concerning the energetic and resourceful

in-service education program which has been directed by Mrs. Eiben, the Director of Nursing Services. Regular staff meetings have been held, with a tape recorder used to transmit to those unable to attend the substance and vitality of the meetings. The use of an "education cart" with new nursing books, periodicals, and pertinent special articles has encouraged a wider variety of professional reading for many members of the staff.

Of particular interest was a staff nurses' discussion group with Dr. Joseph Havens, Clinical Psychologist. The aim of this group was seen not as therapy as such, but as a facilitation of communication among the nurses themselves and with the rest of the staff and patients. In general, Dr. Havens' approach was permissive and group-centered in that he attempted to facilitate interaction at the feeling level by provocative questions, by pointing out feelings which were sometimes unexpressed, and occasionally by silence. This discussion group proved so valuable that it was continued during the second semester by the specific request of those nurses who had been unable to attend during the first semester's group.

One particularly valuable experience for two members of our nursing staff was participation in a newly developed three-day observational experience at the Peter Bent Brigham Hospital.

The medical staff has sought a means for meeting regularly in its entirety without interruption of patient service. In general, a meeting has been held once weekly during the noon hour, thus excluding only one physician from the group each week. It is anticipated that next year a serious attempt will be made to conduct a clinical meeting one evening each month.

One matter of special significance to the professional staff is word of the agreement by President Lederle that members of the medical and mental health staff should be considered eligible for professional-educational (sabbatical) leave under the same conditions as those set for members of the academic community. Plans will be made for setting aside a reserve each year to meet the additional expense necessary to support this valuable program. The present program of encouraging each member of the professional staff to attend a brief program of instruction, at least once yearly, has been continued during the present year.

VII. SPECIAL ACTIVITIES

A. In December, 1964, the Annual Meeting of the New England College Health Association was held on our campus with the University Health Services as host. In spite of what proved to be, weather-wise, the worst weekend of the winter, there was good representation from many schools throughout New England.

An innovation this year for the New England College Health Association was a workshop-type meeting, held in late March, to which a special invitation was issued to those schools not yet members of the New England College Health Association. The program was structured as intending to guide those schools with newly developing or otherwise limited student health services.

B. In the fall of 1964, students from WMUA, the campus radio station, approached the staff of the University Health Services for cooperation in presenting a series of question-and-answer programs in the general area of sex information. Prior to this time, the main activity of our health information program had been holding informal meetings in the dormitories to which members of the staff of the Health Services were invited for discussion of subjects of mutual interest.

This proposal for a radio series seemed to offer an opportunity for more widespread discussion and involvement of a larger and somewhat different segment of the campus population. The problem was given careful thought by our staff and subsequently was discussed with appropriate student personnel officers. As a result, it was decided to accept this offer as a means of providing help which many of the students had been seeking.

Because of the critical importance of careful communication in this area of sex information and because of some lack of assurance on our part that we could express ourselves concisely and accurately while broadcasting "live," it was decided to tape the programs prior to the time of broadcast. In this manner, tapes could be reviewed and edited, if necessary, prior to the time of actual broadcast. After the first session, it was apparent that our unrehearsed discussion was accurate and that we had not become involved in any semantic difficulty, so no editing proved necessary. Partly because of a continuation of this concern for accuracy and clarity of understanding and partly because of scheduling difficulties, however, we continued with taping each of the broadcasts.

Questions for the first program were drawn largely from those which had been presented in individual dormitory sessions with members of the staff. Following the first program, there was a lively contribution of questions in the question boxes placed in the Infirmary and at the Student Union, so that during subsequent broadcasts it was possible to answer many of the specific questions asked of the panel. Samples of questions faced by the panel are included in Appendix V.

Campus religious leaders of all faiths were informed of the scheduling of these programs, and none expressed any objection or any need to participate.

Four programs were presented at biweekly intervals. To judge from the reaction of the students, they met with considerable success and favor. Tapes have been preserved with the idea that they might be re-broadcast at another time.

C. For some time we have felt a real need for gaining a closer reflection of student opinion, both concerning the degree of satisfaction with services presently provided at the Infirmary and to receive suggestions for expansion or improvement of services. Although this opinion would be important at any time, it is of particular importance at present, as we approach the time when we anticipate making active and specific plans for an addition to the Infirmary.

Need was recognized for obtaining suggestions both from wide-based opinion of many students and from more limited dialogue between selected students and members of the staff of the Health Services. In order to obtain this information, an ad hoc committee of the Health Council was formed, comprising one or two members from each of the residence halls, in preparation for a meeting of this subcommittee, a questionnaire was circulated in limited numbers through all the residence halls. About 1,700 questionnaires were distributed; 632 were returned. The results of the questionnaire are reported in Appendix IV.

During the meeting of the subcommittee, held subsequent to the return of the questionnaires, there was valuable discussion of student attitudes and interests in the program of the University Health Services. The exchange of ideas led to some valuable suggestions for the future, not only in the area of patient-care services, but in the equally vital area of development of a health education program. As a direct result of this project, it is hoped that we can initiate a program consisting of a series of problem-oriented health discussions in one or more of the residence hall centers during the next school year.

D. Another area of concern, not directly related to the provision of health care, is that of providing guidance for students who are preparing for professional careers, especially those such as nursing and education which are involved intimately in personal contact. In the past it has been a source of concern, both to us and to the faculty of the School of Education and the School of Nursing, that students who have been noted to have rather marked and somewhat obvious emotional handicaps have been allowed or been encouraged to continue in specialized training far too long before their handicaps were recognized. It is a personal crisis for a student and a poor use of resources of the school to find during the last semester of the senior year that he or she is ill-suited to classroom teaching or bedside nursing. The crisis is especially unfortunate when we realize that, had there been real sensitivity to the significance of the activities and attitudes of students, the crisis could have been averted by re-direction into other more suitable activities.

Our interest in the past has been for establishing a close liaison with these two schools in particular, and any others which felt a comparable need with the intent of sharing our resources to insure better training of students. We have recognized that it is quite obviously impossible for the Mental Health Department to be put in the position of a screening agent for these schools, since this would destroy any possibility of our establishing a confidential therapeutic relationship with the students. On the other hand, we have been determined that, in spite of this limitation, we should be able to contribute in some manner to resolving the

problem, at least to the extent of increasing the sensitivity of faculty members to the presence and significance of possible emotional problems among their students.

During the past year, the most significant development in this area has been with the School of Nursing. Our Mental Health Department has begun a series of weekly faculty group conferences in which the dynamics of student-faculty and nurse-patient relationships could be explored. There has been tremendous enthusiasm for the amount of understanding which has been gained through these initial meetings, and a determination has developed for continuing these in some manner in the future. The intent of the meetings is not for therapy for the faculty, but for exploration of the dynamics of professional relationships so that selection and guidance of students can be undertaken with greater confidence.

Development of a comparable program with the School of Education appears to be proceeding upon a somewhat different pattern. It has been possible to arrange the joint appointment of a clinical psychologist between the School of Education where he will teach one course and be available for faculty and student guidance, and our Mental Health Department where he will be available for work with individual students. In order to avoid difficulties in maintaining confidential therapeutic relationships, it has been agreed that he will not see students of the School of Education for evaluation or therapy for the University Health Services.

E. In last year's Annual Report, it was noted that we had established a diagnosis of Hodgkin's disease for five students during the school year. This year we are working with the National Cancer Institute in an epidemiological study of this somewhat unusual situation.

VIII. FUTURE PLANS AND NEEDS

A. Space

The most imperative need of the University Health Services, once again, is for additional space. It is estimated that if we are to continue providing the same level of service, with the addition only of dental service, for an estimated 25,000 students, we shall need an addition to the Infirmary approximately equal to its present floor area. It is encouraging to realize that the current capital outlay request of the University includes an item for initial planning money for the Infirmary. If this money becomes available, it will be our responsibility to see that plans reflect a realistic and thoughtful projection of the needs of the enlarged student body. It is recommended that an architect who has had previous experience in hospital design be secured, and that such additional consultants as may be necessary be made available in order to ensure that the new construction is designed for maximum adaptation to our growing needs.

The decision concerning the location of the Medical School is of some, although not critical, importance in the planning of our new addition, so it is hoped that this decision will have been reached before planning begins. In the first place, if the Medical School were to be located at a considerable distance from the campus, responsibilities of the University Health Services should be expanded to provide some measure of outpatient care, at least, for student families. No attempt should be made to provide the same degree of comprehensive health care which we provide for the students, since this would involve hospitalization for the special areas of obstetrics and pediatrics. We should, however, be able to meet their day-to-day needs, since the welfare of student families is closely related to the welfare and academic success of the students.

Also, if the Medical School is located at a distance from the University, we can anticipate increasing pressure from certain elements of the faculty for providing at least limited care for faculty, and possibly their families. This is a much less imperative need. Plans should be made for meeting it only after careful consideration of the means by which it can be financed and controlled and after consultation with the local medical community.

Regardless of the location of the Medical School, it is our recommendation that the primary responsibility for providing health care for students be left with the University Health Services and that additional facilities be provided so that we can continue to provide approximately the same level of service independent of, but in cooperation with, a University Hospital. Health care provided for students must be first-quality medical care; this we feel we are able to provide under most circumstances as well as a University Hospital. In addition, however, health care provided students must be student-oriented in the sense that it is presented under circumstances which will meet their needs with a minimum of interruption of their academic program, which is the primary purpose for attending the University. It would be an error in judgment to commit all

hospital care of students to a University Hospital, where the primary emphasis of necessity is on utilization of patients as a teaching resource for medical instruction. Students would be quick to recognize the compromise of their interests and would tend to shun seeking health care on a timely and voluntary basis. Probably there is no other type of medical practice in which it is more critical than in student health that a careful balance be achieved between concern for the strictly "medical" and the social-economic needs of patients. Its orientation is unique, its demands are exacting, its satisfactions are great when it can be practiced in the interest of the students. It cannot be run with satisfaction secondary to some other primary interest.

B. Health Education

The greatest unsatisfied health need of the students continues to be the provision for systematic, comprehensive, and appropriate health information and health education. The report of the student questionnaire (see Appendix IV) reflects a surprisingly strong student sentiment for a more active health information program. During the past year, this program has been more active than previously, with a larger number of voluntary dormitory meetings (see Appendix I), and there were additional invitations which could not be accepted because of limitation of time. All of these dormitory meetings have been staffed on a voluntary out-of-hours basis by members of the staff of the Health Services. The students are eager, the sessions are long and vigorous, and it is not realistic to anticipate that the program can be expanded indefinitely on the basis of the present arrangement. It seems highly desirable, therefore, that at some time in the near future we add to the staff a person whose specific responsibility will be to conduct, or at least organize, some of these educational enterprises.

Our particular interest next year will be an attempt to structure a four-to-six session problem-oriented discussion of health subjects, which we hope to present in one or two residence hall centers. It is hoped that with careful planning and close attention to student interests a rather comprehensive and thoughtful health information program can be structured around some of the problems, such as alcohol, narcotics, sex, etc., which are of considerable concern to students.

The appointment of an Assistant Professor of Health Education in the Department of Public Health promises to be a resource which will be helpful to us in planning and evaluating some aspects of the health information program. This person will not be available for actual instruction of students, but should be helpful in gaining for us some estimate of the level of knowledge of freshmen and to assess the effectiveness of both general and specific health information projects.

The challenges and opportunities in this area are tremendous. We have an alert, curious, and responsive body of future citizens who are eager for information which will increase their productivity

and sense of well-being in years to come. Clearly, it is our responsibility to respond to this interest in a manner which will help to meet their needs in a realistic and timely manner. Unless the system of medical practice changes radically within the next few years, this may be the last opportunity many students have for gaining information concerning prevention of disease and the maintenance of good health.

C. Financial Problems

Increased utilization of services and expansion of activities, especially in the area of health information, have taxed the financial resources of the Student Health Service Trust Fund to its limit. It seems reasonable to assume that students will continue to support the health care activities of the University Health Services through the payment of the student health fee. However, it does not seem reasonable that they should have to assume responsibility for the educational program of the Health Services any more than they are responsible basically for underwriting academic courses of instruction (the tuition fee is recognized as a mere token and not a realistic return for the cost of instruction). It is not intended that we set up an expensive or extensive cost-accounting system to keep an accurate account of those services related to (1) health care for students, (2) emergency care for visitors which could be charged to public relations, (3) emergency care for faculty and provision of tuberculin tests, immunization, etc., which could be charged to instructional costs as a fringe benefit, and (4) the provision of a health information or health educational service for students. There is a strong feeling, however, that some estimate should be made of the proportion of our time and resources which are devoted to non-health care activities and that some financial return be made for these services (unless the provision of the building, maintenance, and utilities is considered to be such a contribution).

Barring unforeseen developments, our financial structure should be sound through the 1967-68 school year, provided we can receive approximately the same level of support as during the past year or two. At the end of that time, however, there will have to be some careful re-evaluation of basic policy and a clear projection of costs for the ensuing few years, taking into account the projected addition. A decision may have to be made whether the health fee will be increased to cover the costs of the additional services requested by the students or whether we maintain student health fees at the present level and decrease services.

One significant development during the past year has been the agreement to contribute to a permanent reserve which will be available for use in the event of unanticipated crises such as unusual (epidemic) calls for health care, unanticipated mandatory pay raises for non-professional personnel, replacement of expensive equipment, etc. During the next year it is planned to begin setting aside a sum of money yearly in preparation for financing professional-educational (sabbatical) leaves for professional staff personnel.

D. Services

No expansion of health care services is anticipated at this time. However, it is recommended that prior to the construction of the addition to the Infirmary, and hopefully following the decision concerning location of the School of Medicine, there be careful consideration of the wisdom of extending services to student families and to faculty.

It is assumed that when a building program is undertaken, provisions will be made for including emergency dental service.

E. Research

If our professional staff is to take its place in the academic community and make a significant contribution to the education of students and faculty in areas of health, we must allow expression for inquiring minds. Physicians, psychiatrists, psychologists, nurses, laboratory workers - each should have a basic uneasiness concerning their knowledge.

Expression of this restlessness and curiosity will be most fruitful and satisfying when it is possible for it to be channeled into orderly research projects. Already our staff has undertaken several small projects which are in progress, and more ambitious projects are planned for the future. It is imperative that our personnel, work, and financial patterns be structured in such a manner that involvement in significant research is promoted and supported, at least for those members of the staff who have the greatest interest and aptitude. Development of an active research program will be one of the greatest sources of satisfaction for the most valuable members of the staff.

SUMMARY

In summary, this has been another busy and satisfying year. It appears that the acceleration of calls for service relative to the growth of the student body has stopped and that we can anticipate a more stable and predictable rate of growth in the call for our services in the future. It is hoped that reaching this position of relative stability will help to relieve some of the anxieties associated with uneven growth and allow us to move ahead with more constructive and more creative patterns for providing health care and health information for the University community.

APPENDIX II

UNIVERSITY HEALTH SERVICES
MENTAL HEALTH DEPARTMENT SERVICES

ANNUAL REPORT July 1, 1964 - June 30, 1965
(Estimate for June, 1965)

Professional Staff:

Psychiatrist - one full-time
Psychologist - one full-time (calendar year)
Psychologist - one full-time (academic year)

Total Number of Students Seen	(fiscal year)	738
Total Number of Therapy Interviews	(fiscal year)	2,672
Group Therapy Attendance (patient hours)		827
Total Group Therapy Sessions		117
Approximate Number Participating		47
Speeches		28
Consultations About Patients (with parents, deans, heads of residence, counselors, police, faculty)		95
Staff Administrative Conferences		139
Conferences - Other (Preventive Health)		163
Graduate Student Supervision		14
Professional Society Conferences Attended "Away"		5
MPA (2) EPA AOA NES		
Visits with Other College Mental Health Services		1
4-H Club Seminar	(meetings)	3
Patients Placed in the Infirmary		62

APPENDIX IV

UNIVERSITY HEALTH SERVICE April 1965

QUESTIONNAIRE CONCERNING DEVELOPMENT OF SERVICES

As the University Health Services grow to meet the needs of the rapidly expanding University, we are concerned to reflect as clearly as possible the specific needs and desires of the students for health services. Specifically, we are now initiating plans for a major addition to the Infirmary, and we shall rely heavily on your advice in making decisions concerning services and facilities.

Please complete this and return it promptly to your counselor or head of residence.

Residence unit TOTAL TALLY - MAY 13, 1965 Class _____

1. Have you utilized any of the services of the Infirmary staff since you came to UMass? Yes 570 No 62
   If "no," omit Questions 2 and 3.

2. In general, were your needs met:
   a. courteously? Yes 544 No 15
   b. efficiently? Yes 384 No 167
   c. effectually? Yes 431 No 107

3. What difficulties have you encountered in having your needs met at the Infirmary? Waiting - 292 "None" - 91 Nurses - 25 Doctors - 2 Poor Inpatient Care - 2 Insufficient Staff - 1.

4. Should emergency dental care (with the possibility of limited restorative care at reduced fees) be made available at estimated addition to student health fee of $1.50 per semester? Yes 472 No 145

5. Should mental health services be increased to include longer-term psychiatric care on campus (Estimated cost $2.50 per semester)? Yes 206 No 398

6. Should arrangements be made for basic outpatient care for student families, provided cost would be borne by married students? Yes 501 No 97

7. Should the staff of the Health Services take a more active part in health instruction (i.e. do you feel this is important)? Yes 370 No 232
   a. Would you be interested in attending a series of 4-6 evening dormitory lecture-discussions which are somewhat more carefully structured than present dorm meetings? Yes 311 No 271
   b. What subjects would be of interest?
      1. _____ 3. _____
      2. _____ 4. _____

8. Please make any suggestions you wish for different or additional services. (Use other side if neeessary)

APPENDIX V

Following are some of the questions presented for the radio panel to answer:

Why are problems of sex relationships so prevalent on this campus?

I think that I am pregnant. How can I tell if this is so? What should I say to the boy and to my parents?

How could I tell if I had a venereal disease?

Is the use of internal sanitary protection, such as Tampax, harmful? Can one use this and still be a virgin?

Do boys have anything similar to menstruation? If so, what and when?

Is masturbation really as bad as people say it is? Please explain briefly about masturbation.

What is your opinion of petting, and how far should a couple go?

Is it true that the sex drive is increased after drinking?

Are premarital relationships helpful in maintaining mental stability?

Is there a limited time in the menstrual cycle when a woman can conceive? Please explain.

What about the pill? Is it effectual and safe?

Is homosexuality caused by emotional or glandular malfunction?

Can one be heterosexual and have homosexual urges at the same time?

What are the possibilities of a girl's becoming pregnant while she is still a virgin?

Do you think that the male should have experience in premarital intercourse before marriage?

Why is abortion illegal in this country? Isn't there less trouble in Japan and Sweden, where abortion has been legalized?

Why do some girls have such severe menstrual cramps? Can anything be done about it?

Why do men get aroused so much more easily than women?

Does intercourse hurt?

What are the differences between the physical and emotional reactions of men and women during petting.

US ARMY ROTC INSTRUCTOR GROUP
UNIVERSITY OF MASSACHUSETTS
AMHERST, MASSACHUSETTS

AHBRO-17 27 May 64

ANNUAL REPORT OF THE DEPARTMENT OF MILITARY SCIENCE

1. APPROPRIATIONS - by fiscal year (FY):

	FY 62-63	FY 63-64	FY 64-65
03 Services, non-employee	$ 50.00	$ 100.00	$ 328.00
04 Food for persons	$ 62.50	$ 37.50	$ 130.00
06 Dry Cleaning	- -----	- ------	$ 75.00
10 Travel and automobile expenses	$ 75.00	$ 50.00	$ 60.00
12 Repairs and Alterations	$ 100.00	$ 50.00	$ 50.00
13 Special Supplies and Expenses	$ 150.00	$ 175.00	$ 300.00
14 Office and Administrative Expenses	$ 150.00	$ 150.00	$ 150.00
15 Equipment	- ------	$ 500.00	$ 75.00
TOTALS	$ 587.50	$1062.50	$1168.00

2. PERSONNEL - as of September:

	Sep 1962	Sep 1963	Sep 1964
Colonel	1	1	1
Lieutenant Colonel	1	1	0
Major	2	1	0
Captain	5	6	4
Enlisted	5	4	5
Senior Clerk Grade 7	1	1	1
TOTALS	15	14	11

3. ORGANIZATIONAL CHART - Inclosure 1.

4. STUDENTS:

a. Number of Majors: None.
b. Number of Students Taught - September:

	Sep 1962	Sep 1963	Sep 1964
(1) Freshmen	469	254	217
(2) Sophomores	380	119	97
(3) Juniors	31	52	52
(4) Seniors	41	29	48

5. FACULTY PUBLICATIONS, RESEARCH GRANTS, PROJECTS AND PROFESSIONAL ACTIVITIES:

a. In September 1963, the University adopted a voluntary program and a change from Armor Branch Training to a General Military Science curriculum for the Reserve Officers' Training Program. This change has facilitated the commissioning of cadets in arms and services more appropriate to their University training than has been the case in the past.

b. Three members of the Army ROTC Instructor Staff who are qualified nuclear weapons analysts, attended technical courses to maintain their proficiency at Fort Devens, Massachusetts during school year 1964-65 Two officers attended refresher course, at Fort Devens, Massachusetts, in military instruction techniques and in the use of audio-visual equipment.

6. SPECIAL PROJECTS OR PROGRAMS:

a. The University Varsity Rifle and Pistol teams are coached by personnel of the Military Department and use the Dickinson Hall Rifle Range. During the week, this five point rifle range is in continuous use.

b. The Army ROTC Rifle Team is active and participates in postal matches with colleges and universities throught the nation. In SY 1962-63, an ROTC Pistol Team was organized and began active participation in a national postal league.

c. The Military Ball is a cadet managed social function open to the public and all University students. It is sponsored by the Army and Air Force ROTC Departments alternately each year. Proceeds from the Ball are utilized in support of cadet activities and as a cost defraying fund retained by the Recognized Student Organization for next year's Ball.

d. The US Army ROTC Flight Training Program initiated in SY 1962-63 resulted this year in 7 cadets being qualified for future flight training in the Army. Training for qualified senior Army ROTC cadets is conducted at Northampton, Massachusetts. The program provides a total of 36½ hours of flight instruction and 35 hours of ground school instruction. Subjects included during ground school are meteorology, navigation and Civil Air Regulations. The Flight Program is supervised by the Federal Aviation Agency.

e. The Bay State Special Forces was initiated in SY 1962-63. The organization has participated in weekend training at Fort Devens, Massachusetts, in patrolling, winter warfare, trainfire, bayonet and fragmentation grenades. At the University, the cadets received training in judo, karate, hand to hand combat, survival swimming, mountaineering, counterinsurgency and warfare. The unit participated in the Holyoke Saint Patricks Day Parade, the Amherst Armed Forces Day celebration and a demonstration at the Annual ROTC Spring Review.

f. Plans have been formulated to organize an Army ROTC Drum and Bugle Corps during the SY 1965-66. The organization would provide music for ROTC and other University events. It is anticipated that most members will also participate in the University Band.

g. The Army ROTC Drill Team was reactivated during SY 1963-64. The team has taken the name Grenadiers and have been active in functions on and off campus. This year they won first place in the Association of United States Army Drill Meet in Boston, Massachusetts, formed a color guard for the Small Schools Tournament, paraded in the Holyoke St. Patricks Parade and participated in numerous departmental activities.

h. The Precisionettes, the University all women drill team, completed their first full year under the sponsorship of the Department of Military Science. Formerly, a part of the University Band, the Precisionettes performed as an independent unit taking part in many varied activities during the school year. Included in these activities were the traditional half-time performance at football games and marching in special parades such as the Pittsfield Haloween Parade, the Holyoke St Patricks Day Parade and the University Homecoming Parade. The highlight of the year's activities was the performance by the Precisionettes at the New York Worlds Fair.

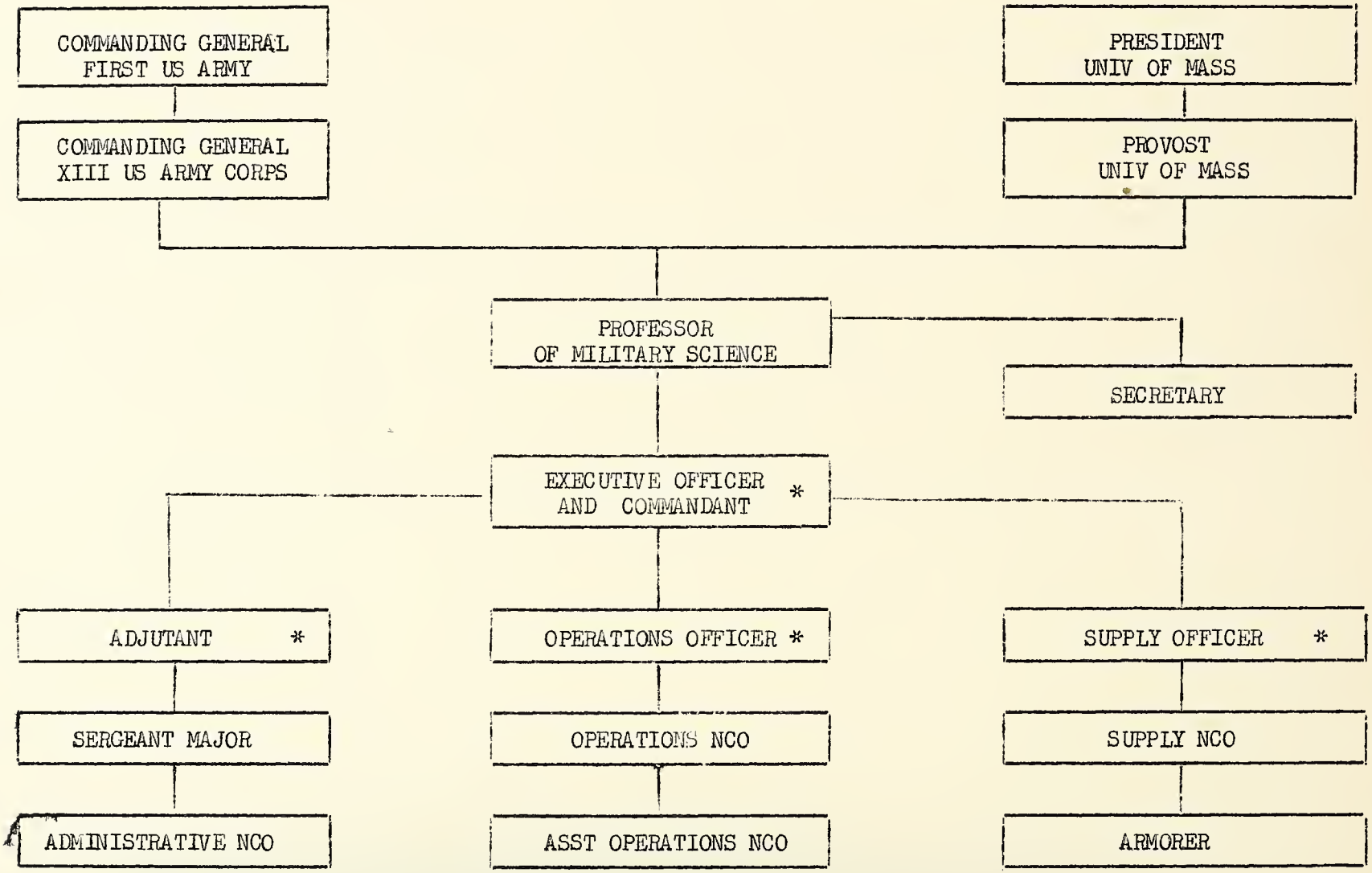
7. FUTURE PLANS AND NEEDS:

a. A covered drill hall is needed for inclement weather drill instruction of the Corps of Cadets and of the drill teams. It could also be used for classes, dances, limited athletic activities, and other curricular and extra curricular activities.

b. With the University plans for expansion and the large number of teams which currently use the existing indoor range facilities, it is imperative that the present five point range be enlarged to ten points or a new ten point range constructed.

c. With the present plan to remove the "stables" (Army ROTC Supply Room), it will be necessary to provide suitable supply and storage facilities for the Army ROTC uniforms and supplies. Present facilities in the basement of Dickinson Hall are not large enough for both Army ROTC and Air Force ROTC supply rooms.

d. An outdoor training area is needed for individual and unit training. Included in this area should be a 25-point 25-meter range, repelling area, physical combat proficiency course, hand-to-hand combat area, bayonet assault course and confidence course. The existence of an area of this nature would enable the department to offer a more varied and stimulating course of instruction. Furthermore it would assist us in developing a more qualified future officer.



* FULL TIME INSTRUCTORS

Inclosure 1 to Annual Report of the Department of Military Science

UNIVERSITY OF MASSACHUSETTS

School of Nursing

A N N U A L R E P O R T

July 1, 1964 - June 30, 1965

UNIVERSITY OF MASSACHUSETTS
School of Nursing

July 1, 1964 - June 30, 1965

From: Mary A. Maher, Dean, School of Nursing

To: Dr. John W. Lederle, President, University of Massachusetts

Subject: Annual Report of the School of Nursing

Dear Sir:

It is my pleasure to submit herein the report of the School of Nursing for the fiscal year 1965; prepared according to the format received from the Office of R. J. McCartney, Secretary of the University.

May I take this opportunity to express my appreciation and that of my faculty for your continued administrative support and understanding.

Most sincerely,

Mary A. Maher, Dean
School of Nursing

MAM:mmr

UNIVERSITY OF MASSACHUSETTS
School of Nursing

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UNIVERSITY OF MASSACHUSETTS
School of Nursing

ANNUAL REPORT

July 1, 1964 - June 30, 1965

1. Appropriation:

Fiscal Year	Appropriation
1962-1963	$18,000.00
1963-1964	$19,950.00
1964-1965	$24,700.00

2. Personnel:

Rank	Number of Personnel Sept. 1962	Sept. 1963	Feb. 1964	Sept. 1964
Dean	1	1	1	1
Associate Dean	-	-	1	1*
Professor	2	2	1	2
Associate Professor	1	1	1	1
Assistant Professor**	4	4	4	5
Instructor	4	4	4	5***
Total	12	12	12	15

* Sabbatical Leave - September 1, 1964 through August 31, 1965.

** 1 Assistant Professor paid from Mental Health Grant.

*** 1 Instructor - Mental Health Grant - appointed February 1, 1965.

Faculty - 1964-65:

Full-time:

Miss Mary A. Maher, R.N., (Rhode Island Hospital School of Nursing)
B.S. (Columbia University)
M.A. (Columbia University)
Dean, School of Nursing

*Miss Mary E. Macdonald, A.B. (Emmanuel College)
R.N. (Massachusetts General Hospital School of Nursing)
M.A. (Columbia University)
Associate Dean and Professor of Nursing Education

Miss Eleanor M. King, A.B. (Hamline University)
M.N. (Yale University School of Nursing)
M.P.H. (Johns Hopkins University School of Public Health)
Associate Professor of Nursing Education

Maternal and Child Nursing:

Miss Marion F. Cahill, B.S. in Nursing (Johns Hopkins University School of Nursing)
M.A. (Columbia University)
Instructor, Nursing of Children

Miss Gellestrina T. DiMaggio, A.B. (Connecticut College for Women)
M.N. (Yale University School of Nursing)
M.A. (Columbia University)
Professor, Maternal and Child Nursing

Miss Rosamond Shepard, B.S. (Simmons College School of Nursing)
M.S. (University of Colorado School of Nursing)
Instructor, Maternal and Infant Nursing

Miss Edith G. Walker, R.N. (Episcopal Hospital of Philadelphia)
B.S.N.E. (University of Pennsylvania)
M.A. (Columbia University)
Assistant Professor, Maternal and Infant Nursing

Nursing of the Adult:

Miss Elizabeth A. Clarke, A.B. (Mt. Holyoke College)
M.S. (Columbia University)
M.N. (Yale University School of Nursing)
Assistant Professor, Medical and Surgical Nursing

Miss Mary F. Condron, R.N. (St. Francis Hospital School of Nursing)
B.S.N.E. (The Catholic University of America)
M.S.N. (The Catholic University of America)
Assistant Professor, Medical and Surgical Nursing

* Sabbatical Leave 1964-65

Miss Mary E. Gilmore, R.N. (Massachusetts General Hospital School of Nursing)
B.S. (Simmons College)
M.S.N. (The Catholic University of America)
Professor of Nursing

Miss Helen C. Mather, B.S. (Boston College School of Nursing)
M.S. (Boston College School of Nursing)
Instructor, Medical and Surgical Nursing

Miss Jane E. Nicholson, R.N. (Mt. Auburn Hospital School of Nursing)
B.S. (University of Utah School of Nursing)
M.S. (Boston University School of Nursing)
Instructor, Medical and Surgical Nursing

Miss Dorothy L. Sexton, R.N. (St. Raphael School of Nursing)
B.S. (Boston College School of Nursing)
M.S. (Boston University School of Nursing)
Instructor, Medical and Surgical Nursing

Public Health Nursing:

Miss Constance A. Kurkul, R.N. (Children's Hospital School of Nursing)
B.S.N. (Boston University School of Nursing)
M.A. (Columbia University)
Assistant Professor, Public Health Nursing

Psychiatric Nursing:

Mrs. Janet Simmons, R.N. (Worcester Memorial Hospital)
B.S. (Boston University School of Nursing)
M.S. (Boston University School of Nursing)
Instructor, Psychiatric-Mental Health Nursing

Miss Rachel Smith, R.N. (Sioux Valley Hospital School of Nursing)
B.S. (South Dakota State College School of Nursing)
M.Ed. (University of Minnesota School of Nursing)
C.A.G.S. (Boston University School of Nursing)
Assistant Professor, Psychiatric-Mental Health Nursing

Part-time:

Miss Lillian Koki, R.N. (Worcester City Hospital School of Nursing)
B.S. (Boston College School of Nursing)
M.A. (Teachers College, Columbia University)
Visiting Lecturer, Psychiatric-Mental Health Nursing
(3 days per week - initiated Nov. 9, 1964)

Mrs. Kathryn D. Nickolls, B.S. (University of Oklahoma)
A.D.A. (University Hospital, University of Michigan)
Clinical Nutritionist

a. Fiscal 1963-64:

1. New Appointments or Replacements:

Name	Rank	Clinical Area	N	R
Marion Cahill	Instructor	Pediatric Nursing		x
Helen C. Mather	Instructor	Medical-Surgical Nursing	x	
Marion Wieners	Instructor	Medical-Surgical Nursing	x	

2. Promotions:

	From	To
Mary Condron	Instructor	Assistant Professor

3. Resignations:

Name	Rank	Date	Length of Service
Evelyn Cyrne	Assistant Professor	6/64	6 years
Reason: Desire to return to a service agency. Public Health Nurse in Western Massachusetts Health Center, Amherst.			
Genevieve Crowley	Assistant Professor	2/1/64	2 years
Reason: Illness and need to be near home and Doctor in Boston.			
Deverly Hall	Instructor	6/64	2 years
Reason: Desire to pursue Ph.D. in New York City.			
Marion Wieners	Instructor	6/64	1 year
Reason: Family and personal reasons - need to be at home in Boston area.			

b. Fiscal 1964-65:

1. New Appointments or Replacements:

Name	Rank	Clinical Area	N	R
Elizabeth Clarke	Assistant Professor	Medical-Surgical Nursing	x	
Constance Kurkul	Assistant Professor	Public Health Nursing		x

Name	Rank	Clinical Area	N	R
Jane Nicholson	Instructor	Medical-Surgical Nursing	x	
Dorothy Sexton	Instructor	Medical-Surgical Nursing		x
Rosamond Shepard	Instructor	Maternity Nursing	x	
Janet Simmons*	Instructor	Psychiatric-Mental Health Nursing		x

* Mental Health Grant.

2. Promotions:

	From	To	Date
Mary Macdonald	Professor (Academic Year)	Associate Dean (Calendar Year)	2/1/64
Gellestrina DiMaggio	Associate Professor	Professor	9/1/64

3. Resignations:

Name	Rank	Date	Length of Service
Marion Cahill	Instructor	6/65	2 years

Reason: Desire to leave teaching.

3. Organizational Charts:

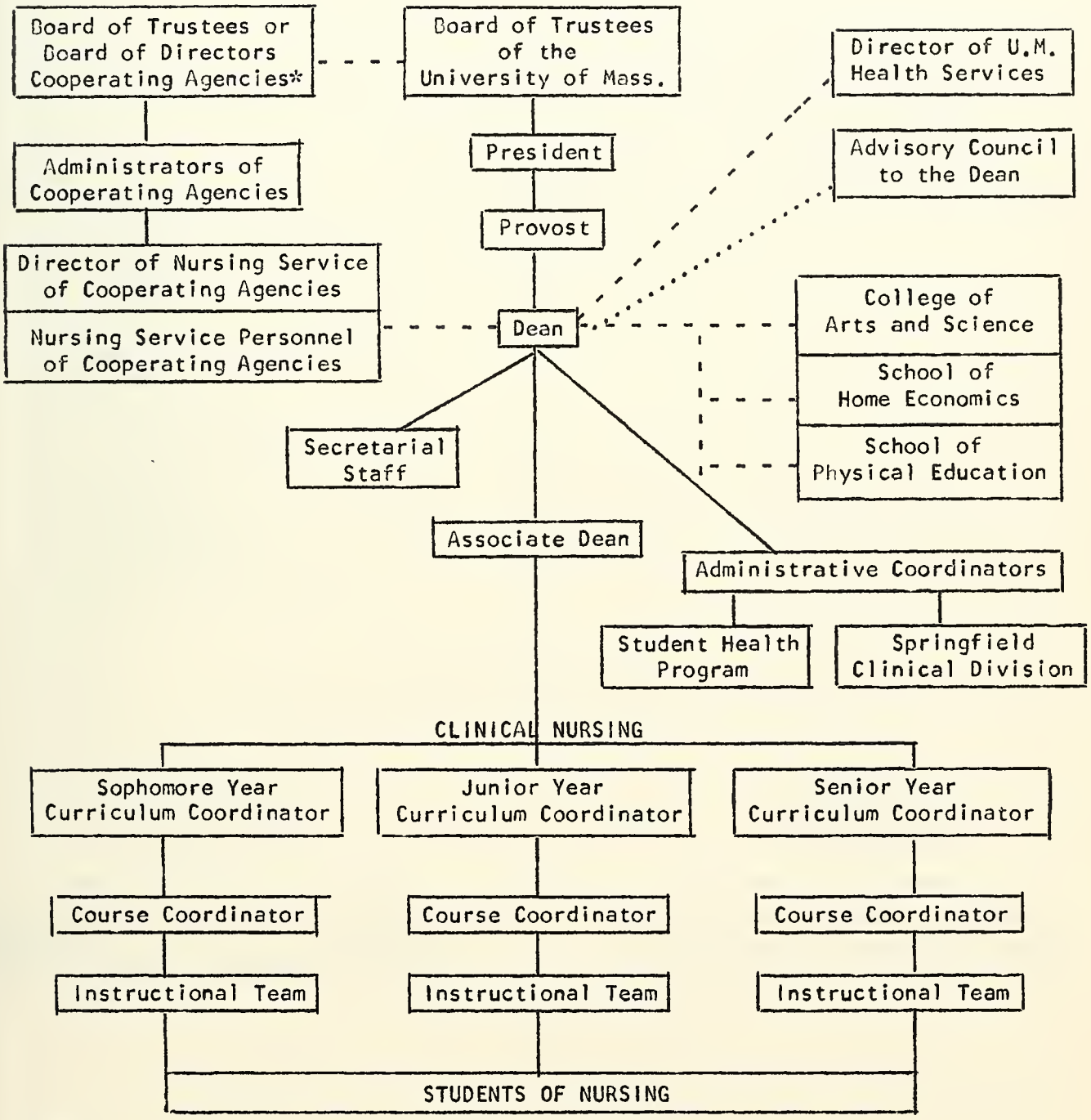
Chart I - Chart of Functional Organization - page 3a.

Chart II - Chart of Faculty Organization - page 3b.

UNIVERSITY OF MASSACHUSETTS
School of Nursing

Functional Chart of Organization

1964-1965



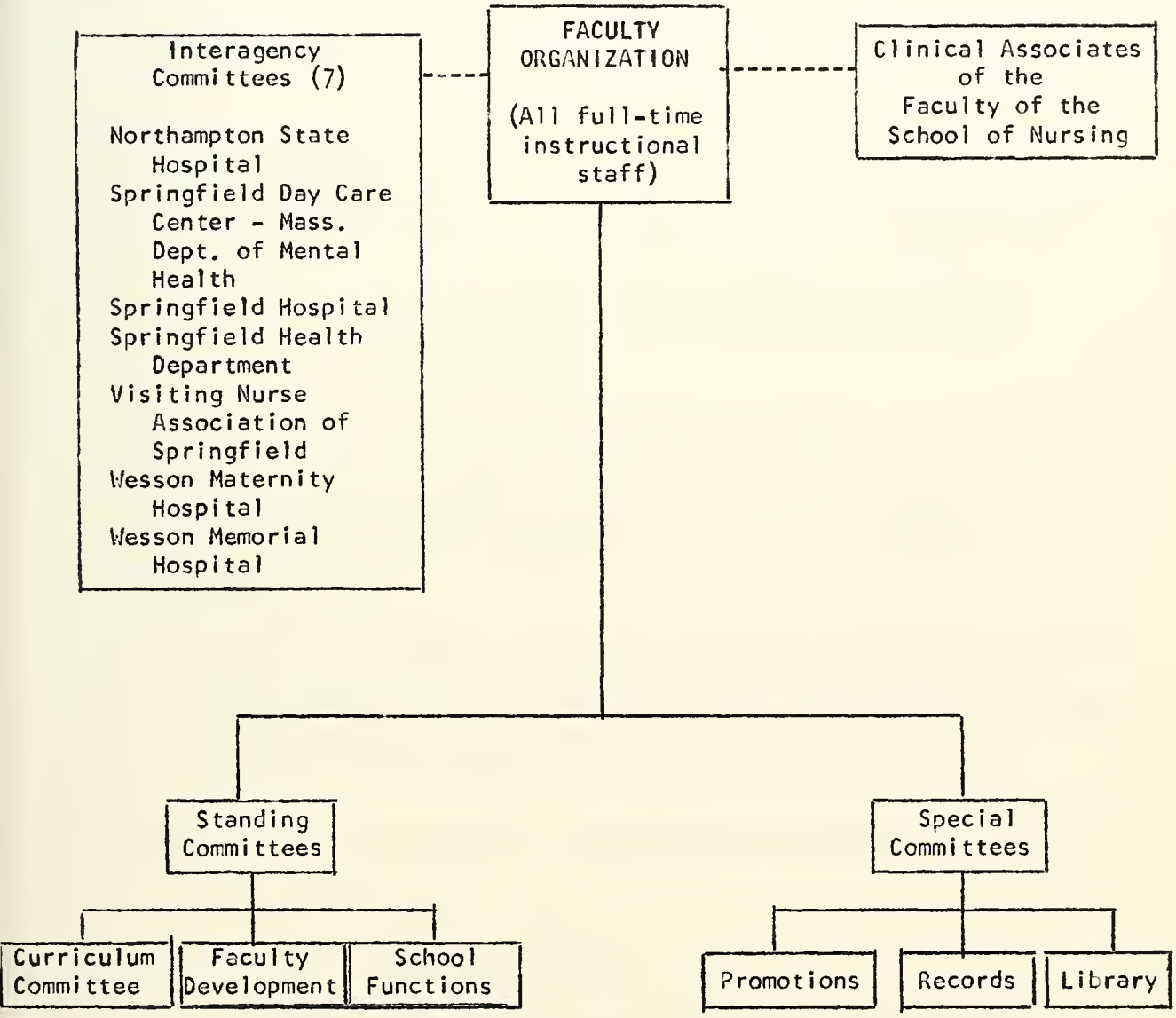
Legend:

_____ Direct Responsibility
- - - - Collaborative Relationship
. . . . Advisory Relationship
* Seven Cooperating Agencies

UNIVERSITY OF MASSACHUSETTS
School of Nursing

Faculty Organization of School of Nursing

1964-1965



Legend:

_____ Direct Responsibility

------- Advisory Relationship

4. Students and Clientele served:

Classification	Sept. 1962	Sept. 1963	Sept. 1964
Nursing Majors	114	146	178
Registered Nurses in Practice*	37	25	Enrollment too limited to warrant offering work conferences
Registered Nurses in Practice**	--	96	72
Total	37	121	72

* Summer job-related work conferences for Graduate Professional Nurses (R.N.'s) in Practice.

** Work conferences for Graduate Professional Nurses in Practice. The University of Massachusetts School of Nursing was one of six Universities in New England participating in the program. The Program was planned under the auspices of the New England Board of Higher Education and funded by the U. S. Public Health Service, and offered during the academic year - March 14-19, 1963 and April 10-15, 1964.

These work conferences, offered to head nurses and nurses in charge of the administration of nursing in hospitals and public health agencies, focused on improving the quality of nursing care through improving the management, supervisory and teaching skills of professional nurses responsible for the direction of others.

5. Publications, Grants, Scholarly, Professional, and University Activities:

Mary A. Maher, Dean

Proceedings: FIRST INTERUNIVERSITY FACULTY WORK CONFERENCE - June 19-26, 1964

Edith G. Walker, Assistant Professor, Maternal and Infant Nursing

"Unwed Adolescent Mothers" - Second Conference on Maternal and Child Nursing - sponsored by The Ross Laboratories. (Paper presented at Columbus, Ohio, November 19, 1964 - Proceedings in process of being published.)

Grants:

1. National Institute of Mental Health

Since July 1956, the School of Nursing has received an annual grant from the National Institute of Mental Health for the purpose of integrating psychiatric-mental health concepts throughout the curriculum. The salaries of two nurse faculty members and one-half salary of a Research Associate from the Department of Sociology are paid from this grant.

One senior student received a year's traineeship beginning in September 1964, which included tuition, fees, and a stipend ($6000). This graduate aspires to gain admission to the University of Pittsburgh School of Nursing Graduate Program in Psychiatric Nursing.

Total grants to date: $154,773.60 (exclusive of Traineeship)

School of Nursing	$142,761.00
University Overhead	12,012.60
Total	$154,773.60

2. Hampshire County Public Health Association:

A grant of $200 was made to the School of Nursing in 1964-65. The grant was used for three scholarships to students for Public Health Nursing Field Practice fees charged by the Visiting Nurse Association.

Scholarly, Professional and University Activities of the Faculty:

The faculty of the School of Nursing feels its responsibility for participation in University and Extra-university activities. The following report indicates their active participation.

A. University

Committee	Faculty Member
Course of Study	Gellestrina DiMaggio
Honors Council (Honors Day Committee)	Gellestrina DiMaggio
Library	Mary Gilmore
Teacher of the Year Award	Edith Walker - Fall, 1964 Eleanor King - Spring, 1965
Audio-Visual Aids	Jane Nicholson
Honorary Degree	Mary A. Maher, Chairman
Master Planning	Mary A. Maher

Committee	Faculty Member
Board of Admissions and Records	Mary A. Maher
Dean's Council	Mary A. Maher
Health Council	Mary A. Maher
Committee on Committees	Helen Mather
Tenure and Grievances	Helen Mather
Special Committee on Student Services - UM/Boston	Elizabeth Clarke

Honors Colloquim:

Eleanor King - Spring Semester (senior students)

Interdepartmental:

Eleanor King - Reader: Honors Thesis (senior)

Residential College:

Gellestrina DiMaggio, Faculty Fellow, Eugene Field House

Resident Halls:

Mary Gilmore, Discussion Leader - "Cancer" - Emily Dickinson House

Faculty-Student Meeting - Brooks House

Senate:

Mary A. Maher

Helen C. Mather

B. Extra-University:

1. Advisory Committee:

Advisory Committee to School of Nursing, Greenfield Community College Program in Nursing	- G. T. DiMaggio
Franklin County Public Hospital School of Nursing, Greenfield, Mass.	- Mary A. Maher
Boston College School of Nursing, Program for Instruction of Public Health Nursing	- Mary A. Maher
Massachusetts Mental Health Planning Project	- Mary A. Maher
Nursing Committee, American Heart Association	- Mary Gilmore
Alumnae Senate, The Catholic University of America, Washington, D. C.	- Mary Gilmore

2. Corporators:

Child Guidance Clinic of Springfield	- G. T. DiMaggio
Springfield Day Nursery (serves as Consultant)	- G. T. DiMaggio
Franklin County Public Hospital	- Mary A. Maher

3. Executive Committee:

Massachusetts Committee on Children and Youth	- Mary A. Maher

4. Professional Nursing Organizations:

a. National League for Nursing, New York City

- Test Item Writer - Obstetrical Nursing February 1-5th	- Edith Walker

b. Massachusetts League for Nursing

- Chairman, Nominating Committee	- G. T. DiMaggio
- Member, Steering Committee, Department of Baccalaureate and Higher Degree Programs	- G. T. DiMaggio
- Member, Scholarship Committee	- Mary Gilmore
- Liaison Committee, Massachusetts League for Nursing and Massachusetts Medical Association	- Constance Kurkul

c. Western Massachusetts League for Nursing:

- Chairman, Program Committee	- Edith Walker
- Co-Chairman, Institute on Multiple Sclerosis	- G. T. DiMaggio

d. Massachusetts Nurse's Association:

- Member, EACT Section	- Mary Gilmore

e. Massachusetts Nurse's Association, District I:

- Vice-President	- E. A. Clarke
- Program Chairman (to November 1, 1964)	- G. T. DiMaggio
- Member, Constitution and By-Laws	- Mary Condron
- Member, Program Committee	- Mary Condron
- Member, Board of Directors	- Mary Gilmore

5. National, Regional and State Agencies related to Nursing:

a. U. S. Public Health Service - Division of Nursing:

- Member, Review Panel for Projects - Nurse Training Act of 1964 - Mary A. Maher

b. New England Board of Higher Education for Nursing:

- Chairman, Nursing Council - Mary A. Maher
- Director, Interuniversity Faculty Work Conferences - Mary A. Maher
- Consultant to Associate Director for Regional Nursing Programs - Mary A. Maher
- Meeting with State College Presidents - Baccalaureate Nursing Programs in Massachusetts: Comprehensive Planning - Mary A. Maher
- Member, Regional Plan for Public Health Nurse in Small Agencies - Constance Kurkul

c. Massachusetts Board of Registration in Nursing:

- Member - Mary A. Maher

6. Community Agencies:

- Member, Community Health Study (City of Springfield) - Mary Gilmore
- Chairman, Scholarship Committee, Hampshire County Business and Professional Women's Club - Mary A. Maher
- Member, Executive Committee, Hampshire County Public Health Association - Mary A. Maher

7. Speakers at Meetings and at Graduations:

- Frontier Regional High School, South Deerfield, Mass., "The Collegiate Program at the University of Massachusetts - R. R. Shepard
- Northampton High School, "Preparation for Professional Nursing" - Dorothy Sexton
- Teachers College, Columbia University, New York City (Graduate students in Maternal and Child Health Nursing), "Maternal and Infant Nursing Program in a Baccalaureate Nursing Program" - Edith Walker
- Second Conference on Maternal and Child Nursing, Columbus, Ohio, "The Unwed Adolescent Mother" - Edith Walker

- Graduation Address, Western Mass. School for Practical Nursing - Mary Gilmore

- Institute on Respiratory Problems, Worcester - Mary Gilmore

- Significance of Goal III to Professional Nursing Education - Mary Gilmore

- Trends in Nursing: Education and Service, Medical Auxillary of the Springfield Hospital - Constance Kurkul

- Graduation Ceremony, Franklin County Public Hospital School of Nursing - Mary A. Maher

- Annual Meeting, Pittsfield Visiting Nurse Association, Pittsfield, Mass. - Mary Maher

- University of Massachusetts-Worcester Alumnae - "Interpretation of Nursing at the University of Massachusetts" - Mary A. Maher

- Graduation Exercises, Cooley Dickinson Hospital School of Nursing, Northampton - Mary A. Maher

8. Consultation Services:

- Staffing of a Psychiatric Division in a General Hospital, Franklin County Public Hospital - Janet Simmons

- Revision of Nursing Procedures; Nursing Service Department, Wesson Memorial Hospital - Mary Gilmore

6. Major Accomplishments:

A. Refinement of the Curriculum:

The progress made during the second year in teaching of professional nursing based on the theoretical construct of "common physical, emotional, and social needs of patients" has been satisfactory.

Students are taught basic principles of patient care based on the common needs of all patients. As a consequence, the self-directing student seeks a broad reservoir of knowledge upon which to base her professional judgment in planning the nursing care of a "particular" patient.

Such an approach, while demanding, is rewarding to members of the faculty teaching team. Considerable time is essential for effective planning and evaluation. Utilization of the specialized preparation, skills, and interests of each member of the teaching team has made it possible for the students to be the recipients of highly motivated teachers who view themselves as a member of an instructional team.

As a result, students have been obliged to be more active participants in the learning process; to utilize their instructor(s) and other members of the professional team as consultants; to read more extensively; and to constantly appraise the effect of their nursing care upon each patient's comfort and cure.

The nature of the senior year curriculum, as presently designed, appears to lend itself less well to a unified approach than does the junior year curriculum. Considerable progress has been made, however, in the refinement of the Senior Core Content.

The faculty appears committed to the value of the present curriculum design, and wishes to work progressively toward accomplishing their objectives.

B. Curriculum Coordinators for Clinical Years:

Experience during 1963-64 indicated quite clearly the need to decentralize the authority and responsibility for the implementation of the curriculum for each of the clinical years. Commencing in September 1964, three curriculum coordinators were appointed:

Sophomore:	Mary F. Condron, Assistant Professor of Nursing
Junior:	Gellestrina T. DiMaggio, Professor, Maternal and Child Nursing
Senior:	Mary E. Gilmore, Professor of Nursing

Each year curriculum coordinators assumed the responsibility for providing leadership to the members of the Teaching Team in the planning, implementation, and evaluation of the nursing courses. The results of the first year lead us to believe that the decentralization of authority and responsibility is a sound administrative concept.

During 1965-66, newer members of the faculty who have shown a real interest in and readiness for serving as a course coordinator will have a somewhat similar, though more circumscribed in its scope, administrative responsibility. Such a plan should serve to provide faculty members with an essential experience.

C. Student Achievement:

It is encouraging to report that 30 or 19.8% of the students of nursing received honor grades for the year ending in May 1965.

First Honors 3.8 or above (1)

Class of 1967

Elinor Scott 3.9

Second Honors 3.4 to 3.7 (4)

Class of 1967

Jean Krupsky	3.7

Class of 1968

Elizabeth Draper	3.5
Kathleen Smith	3.5
Karen Kidder	3.4

Third Honors 3.0 to 3.3 (25)

Class of 1965

Elizabeth Bourque	3.22
Diana Mick	3.06
Elinore Howard	3.03
Linda Lapeza	3.03

Class of 1966

Nancy Jansen	3.3
Judith Forbes	3.2
Louise McCarthy	3.1
Anne Schwalenstocker	3.1
Joanne Goldberg	3.0
Sharon Hoar	3.0
Marilyn McNamara	3.0

Class of 1967

Jane Meagher	3.2
Donna Arsenault	3.1
Marjorie Mackinlay	3.1
Jane Stumpf	3.1
Hope Barker	3.0
Elizabeth Johnson	3.0
Louise Standley	3.0

Class of 1968

Diane DiNapoli	3.3
Janice Abramson	3.1
Janice Harrigan	3.1
Janet Laird	3.1
Joanne Gould	3.0
Brenda Kelleher	3.0
Lea Pratt	3.0

D. Faculty Development:

The interdependency of work effectiveness and faculty satisfaction has long since been documented. The School of Nursing has promoted and provided opportunities for faculty growth as an essential means of fostering high faculty morale, and the improvement of the educational program.

The Faculty Development Committee of the faculty, cognizant of the many factors which influence the curriculum offerings and the teaching of a professional nursing program, planned and implemented the first two educational offerings; the third is a New England Regional effort.

Educational Opportunities Available to All Faculty Members:

1. Institute

Team Teaching - January 25 and 26, 1965

Dr. Henry F. Olds, Harvard School of Education, served as the principal resource and consultant. The Institute was planned and financed jointly by the School of Home Economics and the School of Nursing. All faculty members attended.

2. Faculty Seminars

"The Teacher-Student Relationship in the Clinical Nursing Laboratory"

Four meetings were held this year with Dr. Julian Janowitz, Psychiatrist, University Health Services, for the purpose of discussing attitudes and relationships of the teacher and student in the learning process. Incidents from the experiences of the faculty were used as a focus for discussion.

As a result of these meetings, the Faculty has recommended an extended program for 1965-66.

3. Inter-university Work Conferences for Faculty of Baccalaureate and Associate Degree Nursing Programs in New England:

The first two of a series of six summer Interuniversity Work Conferences sponsored by the New England Board of Higher Education Council for Nursing and funded by the U. S. Public Health Service Traineeship Program, have been completed.

Purpose:

"THESE SERIES OF WORK CONFERENCES PROVIDE THE OPPORTUNITY WHEREBY A FACULTY TEAM FROM EACH OF THE BACCALAUREATE AND ASSOCIATE DEGREE NURSING PROGRAMS IN THE NEW ENGLAND REGION MAY DELIBERATE AND LEARN IN A PHYSICAL, INTELLECTUAL, AND SOCIAL SETTING THAT PERMITS A RETREAT FROM THE PRESSURES OF ACADEMIC RESPONSIBILITY FOR THE PURPOSE OF REAFFIRMED COMMITMENT TO NURSING EDUCATION AND RENEWED CREATIVITY."(1)

Date	Theme	Place	No. Attending	
			Total	U.M.
1964 June 19-26	Reassessement of the Educational Process: A Basis for Improved Teaching and Learning	The Lodge - Stowe, Vermont	104	6 + Dean
1965 June 14-18	Theoretical Constructs Underlying Professional Nurse Education	The Belmont - Harwich-by-the-Sea, Mass.	128	12 + Dean

(1) Report of First Interuniversity Work Conference, prepared by Mary A. Maher, Director, Regional Nursing Education Program, 1964, page 1.

E. Professional Meetings Attended: (Special interest of faculty and availability of time reflected)

Date	Faculty Member	Program	Place of Meet.
1964			
Aug. 7-10	Mary A. Maher	Western Interstate Council on Higher Education	Boulder, Colorado
Sept. 28	Mary A. Maher	New England Regional Conference for Public Health Nursing, Inc.	Boston, Mass.
29	Marion Cahill Gellestrina DiMaggio Mary Gilmore Constance Kurkul	Preparation for Professional Nursing - Goal III, A.N.A.	Chicopee, Mass.
30	Helen C. Mather	Preparation for Professional Nursing	Dedham, Mass.
Oct. 7	Rosamond Shepard	Conference for Nurses - American College of Obstetricians and Gynecologists	New York City
7-8	Elizabeth Clarke Jane Nicholson Helen Mather Rachel Smith	"Dynamic Nurse-Patient Relationship" - (Ida Orlando Pelletier)	U. of Mass. (Mass. League for Nursing)
29	Gellestrina DiMaggio Mary Gilmore Constance Kurkul Mary A. Maher Helen C. Mather Edith Walker	Annual Meeting, District I, M.N.A. - Section Meetings and Evening Program	Williamstown, Mass.
Nov. 5	Mary Condron Gellestrina DiMaggio	Institute: "Programmed Instruction"	Teachers College, New York City
5	Mary Gilmore Constance Kurkul Mary A. Maher Helen Mather Rosamond Shepard Edith Walker	Western Mass. League for Nursing - "Difficulties of Living and Learning of the Emotionally Disturbed Child"	Springfield, Mass.
9-11	Mary A. Maher	National League for Nursing Council of Member Agencies Baccalaureate & Higher Degrees	Dallas, Texas
16-18	Marion Cahill Jane Nicholson Dorothy Sexton	"Nursing Care in Cardiac Crises" - M.N.A.	Boston, Mass.

Date	Faculty Member	Program	Place of Meet.
Nov. 30	Constance Kurkul	Mass. Public Health Ass'n. "Economic Opportunity Act" and Special Interest Sessions	Chicopee, Mass.
Dec. 1	Marion Cahill Gellestrina DiMaggio (Panelist) Mary Gilmore Constance Kurkul Rosamond Shepard Edith Walker	Mass. League for Nursing Annual Meeting	Boston, Mass.
1965			
Jan. 13	Gellestrina DiMaggio Mary Gilmore Constance Kurkul Edith Walker	Institute: "Multiple Sclerosis"	Springfield, Mass.
Mar. 1	Gellestrina DiMaggio	Annual Meeting of Child Study Association	New York City
13	Gellestrina DiMaggio Mary Gilmore Helen Mather	Intercollegiate Conference for Nursing Students - (Dr. Martha Rogers, New York University Dept. of Nursing)	Boston, Mass.
18-20	Gellestrina DiMaggio Rachel Smith	Annual Meeting - Ortho-Psychiatric Association	New York City
22	Jane Nicholson Dorothy Sexton	District I, M.N.A. EACT Section Meeting	Springfield, Mass.
23	Mary Gilmore Eleanor King Helen Mather Edith Walker	District I, M.N.A., - "Evaluating Student Progress" (Dr. Alice Rines, Teachers College, Columbia University)	Northampton, Mass.
31	Mary Gilmore	"Economic Security for Nurses"	Springfield, Mass.
Apr. 13	Rosamond Shepard	"Nursing and the Law" - (Dr. Bernice Anderson, Simmons College)	Boston, Mass.
28	Mary Gilmore Dorothy Sexton	Business Meeting, District I, M.S.N.A.	Northampton, Mass.
May 3-7	Mary A. Maher	National League for Nursing - Biennial Convention	San Francisco, California
6-7	Edith Walker	International Childbirth Education Association	Philadelphia, Pennsylvania
21	Rosamond Shepard	"Nursing and the Law" - (Dr. Hersey, Western Mass. Hospital Association)	Holyoke, Mass.

Date	Faculty Member	Program	Place of Meet.
June 14-18	Marion Cahill Mary Condron Elizabeth Clarke Gellestrina DiMaggio Mary Gilmore Lillian Koki (part-time) Constance Kurkul Mary A. Maher Helen Mather Jane Nicholson Elizabeth Petti (new as of 9/65) Dorothy Sexton Rosamond Shepard	Second Interuniversity Faculty Work Conference (N.E.D.H.E.N.)	Harwich-by-the-Sea, Mass.

F. Preparation of Colored Film:

A film was prepared and directed by Jane Nicholson, Instructor of Nursing, on The Principles of Nursing Care of Patients in Traction with seven junior students participating.

Though demanding of the time and energy of both the Instructor and the students, the experience proved to be extremely valuable. The film has been added to the Audio-visual library of the School of Nursing, and will be used for a variety of purposes by the School.

UNIVERSITY OF MASSACHUSETTS
School of Nursing

PROGRAM SEQUENCE

FIRST YEAR

1st Semester	Credit	2nd Semester	Credit
English 111, Eng. Composition	2	English 112, Eng. Composition	2
Chemistry 111, General	3	Chemistry 112, General	3
Psychology 101, General	3	Zoology 101, Introductory	3
Sociology 101, Introduction	3	Elective*	3
Elective*	3	Nursing 100, Introduction	3
Speech 101**, Oral Communication	2	Speech 101**, Oral Communication	2
Physical Education 001a, 001b+	2	Physical Education 002a, 002b+	2

* Elective chosen from: History, Government, or Economics. Students wishing to elect a foreign language may do so providing the basic requirement of the six elective credits indicated above is fulfilled prior to graduation. If a language is elected, intermediate proficiency is required.

** May be taken either semester.

\+ Not quality point credit.

SECOND YEAR

1st Semester	Credit	2nd Semester	Credit
English 125, Masterpieces of Western Literature	3	English 126, Masterpieces of Western Literature	3
Microbiology 150, Introductory	4	Chemistry 120, Introduction to Biochemistry	4
Zoology 137, Human Anatomy and Physiology	4	Zoology 138, Human Anatomy and Physiology	4
Human Development 380, Human Development in the Family	3	Food & Nutrition 141, Nutrition & Food Preparation	3
Nursing 110, Fundamentals of Nursing I	3	Nursing 111, Fundamentals of Nursing II	3
Physical Education 031a, 031b+	2	Physical Education 032a, 032b+	2

\+ Not quality point credit.

THIRD YEAR

1st Semester	Credit	2nd Semester	Credit
Nursing 200, Nursing of Child & Adult in the Hospital and Community I	7	Nursing 210, Nursing of Child & Adult in the Hospital I	7
Nursing 201, Nursing of Child & Adult in the Hospital and Community II	7	Nursing 211, Nursing of Child & Adult in the Hospital II	7
Elective*	3	Elective*	3

* Elective chosen from Behavioral Sciences.

FOURTH YEAR*

1st Semester	Credit	2nd Semester	Credit
Nursing 300, Maternal & Infant Nursing	7	Nursing 302, Nursing of the Adult in the Hospital I	7
Nursing 301, Nursing in the Community	7	Nursing 303, Nursing of the Adult in the Hospital II	7
Nursing 390, Professional Foundations of Nursing	2	Nursing 391, Senior Seminar	2
Elective**	3	Elective***	3

* Clinical nursing courses listed will be taken during first or second semester, depending on clinical rotation of individual student.

** Humanities Elective: Art, Music, English Literature, Foreign Language Literature, History, Philosophy.

*** Elective: Student will be guided in her selection by her major advisor.

7. Special Projects:

A. Pilot Research: Dr. John F. O'Rourke, Associate Professor, Department of Sociology and Anthropology

BUREAUCRATIC VS PROFESSIONAL ATTITUDE FORMATION AMONG STUDENTS OF NURSING[1]

As is so frequently the case, the pilot research conducted by Dr. O'Rourke, and participated in by the students of each of the four classes and the faculty, poses more questions than definitive findings.

Since the pilot research found that the concept of "profession and its adjectives" are grossly over-simplified by those who study and use them, several areas for research worthy of exploration in depth have been suggested.

- A study of the problem of professional value orientation.

- A study of the nature of the relationship between the orientations of the faculty and of the students.

- A study of the impact of the environmental content, the hospital, wherein the student has her major clinical learning.

B. School of Nursing-Community Hospital Collaboration:

In anticipation of developing a Residency program as an integral part of the graduate program in Nursing Administration which will be initiated in 1966, negotiations have gone forward with hospital and nursing service administration of the Franklin County Public Hospital.

The concept of the "Hospital as a Community Health Center" has intrigued the citizens of the immediate and expanding community. As a result, there has been financial support for the building of modern and functionally designed nursing units and service departments.

It is anticipated that the University-Hospital relationship and collaboration will result in the development of a model Residency Program in Nursing Administration.

An appreciation of the interdependency of a University School of Nursing and a Community Agency which serves as a realistic and dynamic learning laboratory has promoted professional collaboration.

The professional preparation, experience, calibre, interest and enthusiasm of the key administrators, hospital, nursing and medical staff, equates that more frequently seen in large teaching medical centers.

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(1) O'Rourke, John F. Bureaucratic versus Professional Attitude Formation Among Students of Nursing, (Unpublished report, University of Massachusetts School of Nursing).

C. A Regional Approach to the Preparation of Nursing Faculty:

The University of Massachusetts School of Nursing has assumed a major role in promoting the employment of a full-time Associate Director of Regional Nursing Programs under the auspices of the New England Board of Higher Education.

As Chairman of the New England Council on Higher Education for Nursing, the Dean and members of the faculty have participated directly and indirectly in the short-term courses (trainee programs) funded by the U. S. Public Health Service and conducted under the sponsorship of the New England Board of Higher Education.

As the need for a practicum in the teaching of nursing becomes more pressing, it is anticipated that the graduate nursing programs in New England (Boston College, Boston University, Yale University, and the University of Massachusetts) will be involved in collaborative planning. The value of a Residency in Teaching as an integral part of the graduate program has been explored and interested and qualified clinical faculty members of a baccalaureate nursing program would serve as the preceptors to the Resident in Teaching.

The concept is exciting. Progress toward developing and implementing a plan wherein the combined faculty resources in a Region can be mobilized and utilized in assuming a more aggressive role in the preparation of nursing faculty is a task worthy of time and energy.

8. Future Needs and Recommended Plan of Action:

A. BACCALAUREATE NURSING PROGRAM:

Need:

Expansion of the baccalaureate nursing program must go forward if the University School of Nursing is to fulfill its responsibility to 1: increase the quantity and quality of professional nurse practitioners, and 2) graduate a larger number of students eligible for admission to advanced programs in nursing.

N.B. Only 35% of the eligible high school graduates seeking admission to our School in September 1965, were accepted -- specifically, 70 out of 200.

Limitation of the clinical resources in Western Massachusetts is a significant barrier which makes it difficult, if not impossible, to further extend the enrollment of students at the University of Massachusetts/Amherst in the immediate future. The principal educational resource used for our students also provides clinical experiences to a variety of educational programs thereby limiting our use. For instance:

- Students in their own diploma program (60 freshmen admitted yearly).
- Practical Nursing students from a vocational school.

- Surgical Technicians from a vocational school.
- Nurse's aides preparing for nursing service in a hospital.

Six of the nine general hospitals in Western Massachusetts with a bed capacity of 250 or over conduct a diploma nursing program, and one provides the clinical experience for an Associate Degree program.

# of Hospitals	Location	Diploma	Assoc. Degree	None
3	Springfield	2	-	1
2	Holyoke	2	-	-
1	Northampton	1	-	-
2	Pittsfield	2	-	-
1	Greenfield	-	1	-

Hospitals offering a diploma program in nursing view their graduates as potential nursing service personnel and are reluctant to discontinue their schools. While other states, expecially in the West and principally California, are encouraging and supporting the initiation of nursing programs in public junior colleges, State Colleges, and in Universities, hospitals in Massachusetts continue their diploma programs.

Table I - Number and Types of Nursing Programs - Massachusetts 1964*

No. of Programs	Diploma	Associate Degree	Baccalaureate
60	49	5	6

Table II - Enrollment, Admissions and Graduates in Professional Schools of Nursing -- Massachusetts**

	Student Enrollment				Admissions				Graduates			
	Dip.	A.D.	Bac.	Tot.	Dip.	A.D.	Bac.	Tot.	Dip.	A.D.	Bac.	Tot.
1964	5805	268	1176	7249	2340	212	375	2927	1604	27	205	1836
1962	5802	77	879	6758	2346	31	260	2637	1561	16	142	1719

Plan of Action:

University of Massachusetts/Amherst:

Continue the baccalaureate nursing program admitting qualified high school graduates and maintaining a student enrollment of approximately 250.

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* FACTS ABOUT NURSING, 1964.
** Ibid.

University of Massachusetts/Boston:

Design, develop and institute a baccalaureate nursing program.

The initiation of a nursing program - University of Massachusetts/Boston - commencing in September 1966, is well within the range of feasibility.

A professional school of nursing which is an integral part of a university's organization must be associated with a strong college, school, or department of Arts and Sciences which provides courses in liberal arts, the humanities, and physical, biological, and social sciences, fundamental to the development of the more specialized professional area of the nursing program.

Hospital and community health resources and facilities which would provide the clinical learning experiences are available or could be developed in the Greater Boston Area.

It may well be anticipated that potential qualified nursing candidates, whose family finances prohibit enrollment at the University of Massachusetts/Amherst, or at private baccalaureate nursing programs in Boston, will find it possible to make use of the University's educational services at Boston.

Phasing:

Estimated Nursing Faculty

	1966	1967	1968	1969	1970
Dean	1	1	1	1	1
Clinical Faculty:					
Fundamentals of Nursing & Nursing of the Adult	1	4	4	6	6
Nursing of Children	1	1	2	3	3
Maternal & Infant Nursing	1	1	2	3	3
Psychiatric Nursing	1	1	2	3	3
Public Health Nursing	-	1	1	3	3
Total Clinical	4	8	11	19	19

Secretarial Service

Total	1	2	2	3	3

Student Enrollment - Projected 4 years

	1966	1967	1968	1969
Freshmen	60	60	60	60
Sophomores		55	55	55
Juniors			55	55
Seniors				55
Total	60	115	170	225

Total enrollment baccalaureate nursing students:

University of Massachusetts/Amherst	250
University of Massachusetts/Boston	225
	475

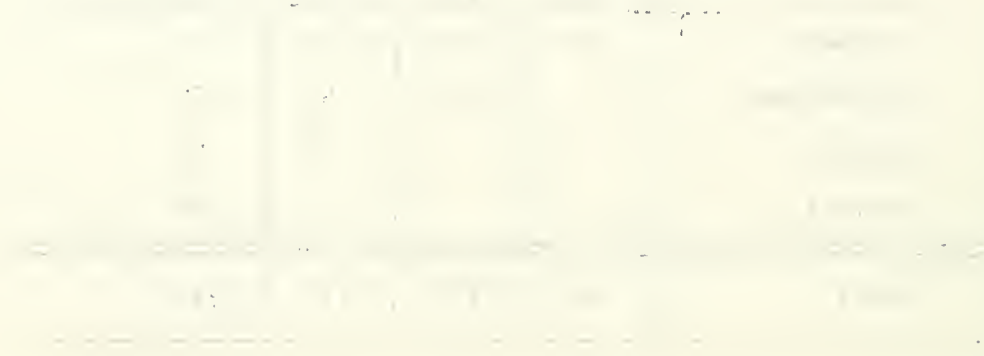
D. SCHOOL OF NURSING BUILDING:

The absolute necessity of a School of Nursing facility has been presented to the Administration and to the University Master Planning Committee. There was reasonable assurance that the design funds would be requested for fiscal 1966 ($93,000). Approval had been granted by the Treasurer in October 1964, to file an "Intent of the School of Nursing to apply for a Construction Grant under the Nurse Training Act of 1964 with the Bureau of State Services, Department of Health, Education, and Welfare, Washington, D. C."

The initial construction funds from the Nurse Training Act will become available in July 1965. $283,000,000 has been authorized for the next five years and over 1000 schools of nursing will be seeking such grants. Schools of nursing in private Institutions of Higher Education who are able to employ an architect, have already gone forward with dispatch in the design of their facility and in filing a construction grant application.

As the plans for an undergraduate and graduate program in nursing go forward, the location of the University School of Nursing Building on the campus in Amherst becomes increasingly sound.

That the University of Massachusetts School of Nursing will need at least two clinical divisions; one in Amherst, and the second in Boston by September 1966, is self-evident if the nursing needs of the citizens of Massachusetts are to be met and baccalaureate graduates prepared for teaching and administrative positions. It is unreasonable, therefore, to delay the construction of a School of Nursing Building until the University Medical Center is completed.



C. A Supplemental Program Leading to a Baccalaureate Degree in Nursing for Graduates of Diploma and Associate Degree Nursing Programs:

Plan:

Admit qualified graduates of diploma and associate degree nursing programs to the four year baccalaureate nursing program.

Comment:

The young graduates of these programs, many of whom were qualified for admission directly to a baccalaureate nursing program, now wish to complete the requirements for a B.S. degree at the University of Massachusetts/Amherst and University of Massachusetts/Boston.

Graduates 1964:

- Diploma Programs 1604
  Associate Degree Programs 27

The integration of such transfer students into the generic nursing program would necessitate the development of qualifying examinations which could be used as a basis for the allotment of transfer credits, and plan a clinical nursing program necessary to meet the deficiencies in their program.

D. Advanced Program in Nursing (Graduate Program):

The paucity of nursing faculty prepared at a Master's and/or Higher Degree program is a perplexing problem confronting schools wishing to extend enrollment.

Admission to a program in nursing for the preparation of teachers, supervisors, administrators, clinical nurse specialists, consultants or researchers requires that the applicant be a graduate of a baccalaureate degree program in nursing.

Increase in Graduates in Nursing Programs*
5-year period

1958	1963	Increase	
		Number	Percent
1009	1147	140	12.18

Plan of Action:

Initiation of new advanced programs at the graduate level - University of Massachusetts/Amherst:

Preparation of Faculty -

A. A six year program for the preparation of clinical faculty

* N.L.N. Department of Baccalaureate and Higher Degrees, 1965.

for professional schools of nursing leading to a Master's Degree with a major in teaching.

Design, develop, and institute such a curriculum for the preparation of nursing faculty commencing In 1967-68.

- Admit only highly motivated, mature and exceptionally well qualified students who have completed two years of general education in an accredited junior or senior college.

Pattern:

General Education	Upper Division courses	Major - Teaching in Nurs. Programs
2 years	2 years	2 years
Junior or Senior College	University of Massachusetts/ Amherst	

4 semesters - General Education
4 semesters - Upper Division Courses in Nursing
4 semesters - Upper Division Courses in Teaching of Nursing

(1 of the 4 semesters to be a Residency in Teaching of Nursing)

Thus, the baccalaureate degree would be by-passed, and students admitted to the program would be expected to complete the requirements for a Master's Degree.

B. Graduate Program in Psychiatric Nursing:

Initiate a graduate program in Psychiatric-Mental Health Nursing by 1966-67.

Facilities and resources for the advanced program in Psychiatric Nursing in Western Massachusetts need to be identified and developed and faculty recruited. The reality of a new Mental Health Center for Children and Adults in Springfield, Massachusetts, and the resources of a private Mental Institute in the Berkshires are potential collaborating agencies.

Such a program could be financed in part, at least, by the National Institute of Mental Health.

UNIVERSITY OF MASSACHUSETTS
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Exhibit A

FACULTY NEEDS - 1966-67

BACCALAUREATE NURSING:	1965-66			1966-67			
Univ. of Mass./Amherst	Old	New	Total	Old	New	Total	Remarks
Medical-Surgical (including Fundamentals of Nursing)	6	4	10	10	-	10	
Maternal & Infant Nursing	2	1	3	3	-	3	
Pediatric Nursing	2	-	2	2	1	3	
Psychiatric Nursing	2	1	3	3	-	3	2 to be paid for from Mental Health Grant
Public Health Nursing	1	1*	2	2	1	3	* Reassignment to E. M. King
Sub-total	13	7	20	20	2	22	
GRADUATE PROGRAM:							
Univ. of Mass./Amherst							
Nursing Administration	0	1	1	1	-	1	
Clinical Nursing (Psychiatric Nursing)	0	0	0	0	1	1	
Sub-total	0	1	1	1	1	2	
BACCALAUREATE PROGRAM -- NEW PROGRAM AS OF SEPTEMBER, 1966							
Univ. of Mass./Boston							
Dean				-	1	1	
Medical-Surgical Nursing				-	1	1	
Maternal & Infant Nursing				-	1	1	
Pediatric Nursing				-	1	1	
Psychiatric Nursing				-	1	1	
Sub-total				-	5	5	
GRAND TOTAL	13	8	21	21	8	29	

SUMMARY:

Baccalaureate Program -

New - Amherst - 1966-67 = 2
New - Boston - 1966-67 = 5

Graduate Program -

New - Amherst - 1966-67 = 1

Total 8

1. Appropriations

Account/Year	1962-1963	1963-1964	1964-1965
03	21,275	27,825	36,259
06	8,900	14,000	6,900
07	4,350	6,000	7,000
09	1,000	2,140	3,000
10	1,500	2,700	3,940
11	-0-	-0-	200
12	2,500	2,500	3,398
13	14,045	16,850	18,850
14	1,500	1,500	2,330
14[1]	-0-	5,400	6,000
15[2]	2,809	6,775	3,400
16	530	350	500

2. Personnel[1]

	1962-1963	1963-1964	1964-1965
Dean	1	1	1
Assistant Dean	0	0	1
Department Head	2	2	2
Professor	3	3	3
Associate Professor	7	7	6
Assistant Professor	7	5	5
Instructor	8	10	11
Part Time Instructor	2	2	2
Assistant Athletic Dir.	1	1	1
Head Coach	2	2	2
Intramural Director	0	0	1
Asst. Football Coach	2	2	2
Athletic Coach	4	4	4
Asst. Athletic Coach	2	2	3
Financial Manager of Athletics[2]	1	1	1
Sports Information Dir.[2]	1	1	1
Asst. Sports Information Director[2]	1	1	1

3. Organization Chart for 1965-1966 - See attached chart.

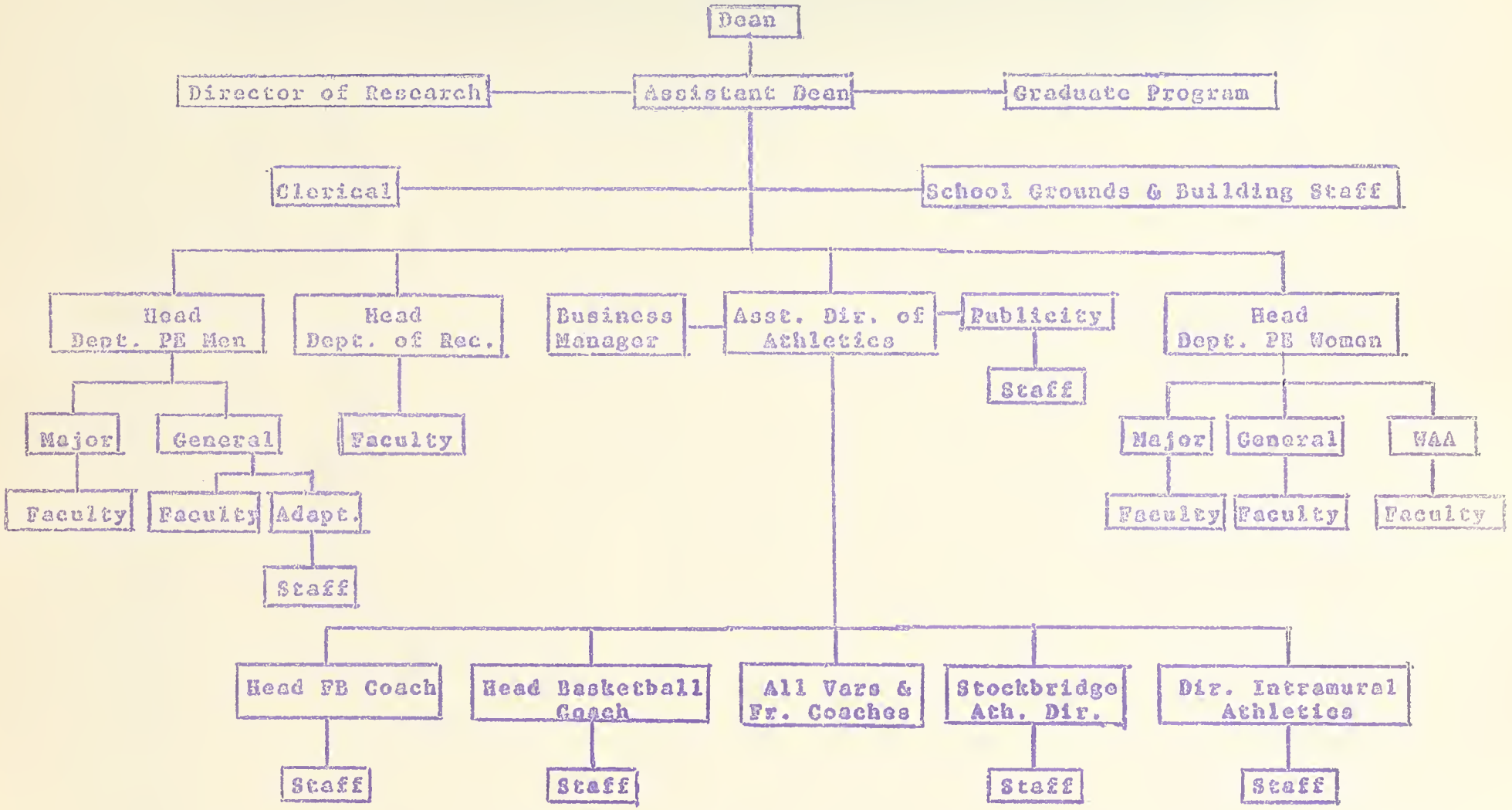
4. Students or clientele served[1]

	Sept. 1962	Sept. 1963	Sept. 1964
Number of Majors	271	272	[illegible]
Number of Students Taught	4185	4522	[illegible]
Athletic Team Membership	855	829	[illegible]
Intramural Participation	not recorded	not recorded	5067

[1]See Appendix for Departmental breakdown

[2]Paid from Athletic Trust Funds

School of Physical Education



5. Faculty Publications

COFFEY, Margaret A., "The Sportswoman: Then and Now." Journal of Health, Physical Education and Recreation, Vol. 36, No. 2, pp.38-41,50.

JAMES, Robert J., "An Electrical Timer Device for Rope Climb" with James S. Bosco, Journal of Physical Education, pp. 127, 128, May-June, 1965.

RICCI, B. and KARPOVICH, P.V., "Effects of the Height of the Heel Upon the Foot" Research Quarterly, October 1964, 35, 385-88.

Current research and writing in progress:

a. Text on Outdoor Recreation
b. Oxygen Uptake Blood Lactate Relationship During Work Levels above Steady Rate. (Supported by Faculty Research Grant)
c. Negative Energy Balance - A Study in Obesity.
d. Muscle Strength of Lower Leg Extensors Negating Resultant Forces
e. Effect of Treadmill Running on Oxygen Debt and Efficiency
f. Sub talar Joint Stability Afforded by Positive Support

Professional Activities: School Faculty represented the University at the following conferences during the year:

American College of Sports Medicine
National College Physical Education Association for Men
National Collegiate Athletic Association Meetings
Outdoor Recreation Conference
National Recreation Congress
New England Recreation Conference
Physiology Section of International Ergonomics Association
Eastern Association for Health, Physical Education & Recreation
American Assoc. for Health, Physical Education & Recreation
Massachusetts Assoc. for Health, Physical Education & Recreation
Eastern District Assoc. for Health, Physical Education & Recreation
Northeastern Conference on Educational Research
International Academy of Aquatic Art
Workshop of the National Section on Dance

6. Major accomplishments

a. Department of Athletics

(1) Intramurals

The Intramural Athletics program during the 1964-1965 academic year was a very successful one. The appointment of Mr. Chester Gladchuk as a full time Director of

Intramurals has in no small way contributed to the expanding student participation and orderly organization of activities in this important University program.

The following activities were offered during the 1964-1965 academic year: Football, Lacrosse, Cross Country, Tennis (Singles and Mixed Doubles), Basketball, Ten Pin Bowling, Handball, Squash, Volleyball, Wrestling, Softball, and Badminton. In these 13 activities there was individual participation of 5067 and a total participation of 16,048.

The following table is presented to show the increase in participation over 1963-1964:

Overall Total Percentage Increase

Number of teams	58.8%
Individual Sports	16.3%
Team Participants	67.6%
Participation All Sports	64.6%

An expanded program for 1965-1966 is planned and will include Soccer, Horseshoes, Open Bowling Tournament, Golf (Hole in One), and Basketball foul shooting.

2 Highlights of 1964-1965 Athletic Year

Baseball - From tie for last place in Yankee Conference 1964 to tie for third place 1965

Golf - Fifth in Yankee Conference and fifth in New England Intercollegiate Championships

Tennis - 8th straight winning season. Second in Conference and 11th in New England competition.

Track - Third in Yankee Conference

Basketball - Second in Yankee Conference. Fourth in New England. Probably the most difficult schedule ever attempted.

Gymnastics - First year in Eastern Intercollegiate Gymnastic League competition.

Swimming - Third straight winning season.

Wrestling - Best record in six years. Finished third in New England. Sent two men to N.C.A.A. College Division Championships at Denver, Colorado.

Rifle - Second in Yankee Conference. 19th of 44 in U. S. Coast Guard Academy Invitational.

Pistol	- Second in N.R.A. competition
Ski	- Finished fourth in own 12 member league
Football	- Second straight Yankee Conference title. First in New England, second straight year. Third in U. S. among small colleges. Fifth straight winning season.
Cross Country	- Second in Yankee Conference. Fifth in New England
Soccer	- First winning season since 1954. First win over Amherst since 1948.

The Frank J. Keany Trophy, awarded to that Yankee Conference member who, during an athletic year, won the most points in Conference Championship competition, comes to the University of Massachusetts for the 1964-1965 year.

(3) Facilities

As of this date construction on the Football Stadium and practice fields is on schedule for the opening of the 1965 season. From a functional and aesthetic standpoint this facility should be one of the best in the country. Necessary repairs to the Tennis Courts have made this play area more usable and noticeably more attractive.

b. Department of Physical Education for Men

(1) Undergraduate Professional Preparation Program

A revision of the undergraduate major curriculum has been under study during the current year. Research in major curriculum substantiates the fact that the present program is equal to superior courses of study offered in other professional Schools and Colleges. The revised curriculum, when instituted will transcend the current offerings and establish the major program at the University as a national guide to professional preparation in Physical Education. This has been made possible by the retention of an outstanding faculty, the provision of excellent physical facilities, and budgetary support of the total program.

Delay in inauguration of the new course of study is necessary in order to consider the possibility of consolidation of certain courses to be offered in the revised major program for Women which is currently under study.

(a) Recruitment

A "Career Day" for the purpose of recruitment of prospective majors throughout the State was initiated during the fall of 1964.

This joint effort, with the Women's Department, was most successful from the standpoint of acquainting interested High School students, their teachers and parents with the University, the character of the Physical Education programs, admission standards, and facilities.

The reception of this type of career introduction has been such that continuation of a similar program is planned for next year.

(b) Student Teaching

During the period of July 1, 1964 to June 30, 1965 the Student Teaching Program has placed and supervised thirty-four physical education majors in 15 cooperating schools. Only those schools prepared to provide the best of student teaching experience in both elementary and secondary school physical education as well as extra curricular assignment in interschool and intramural competitive athletics are selected as cooperating schools.

During the unit of student teaching, seminar meetings are scheduled at which time groups of student teachers return to campus and discuss, with the Department Staff, crucial issues and problems faced as beginning teachers in their particular school assignments.

In an effort to upgrade the program of student teaching, in Physical Education, a New England District Association of Student Teachers has been formed. Representation at the Association Conference reveals that the program conducted by the School is unique in areas of course responsibilities, on-the-job guidance through visitation, and critic teacher evaluation procedures.

Joint seminar meetings with the Women's Department and the development of a critic teacher's handbook will be initiated during the coming academic year.

(2) General Program

The caliber of the General Program is reflected in the genuine interest displayed by students enrolled in the program. This interest results from the high level of instruction, the broad selection of activities offered, the instruction environment, equipment and supporting services.

Outcomes to the students are evidenced by their voluntary participation in a variety of activities during periods of "free play" in which facilities and equipment are available during the late afternoons, evenings and weekends. The stigma of compulsion attached to the "required" aspect of the program is no longer in evidence. Physical Education is viewed by the student

as an educational, rather than a perspirative experience--an attitude which is not readily attained and one which should be fostered.

(3) Adapted Program

The objectives of this specialized program are threefold:

To develop each handicapped student to his physical potential.

To develop skill and techniques in recreational activities according to the student's physical limitations.

To assist the student to understand his limitations.

The present program includes 10 graduate, 214 male and 2 female undergraduate students. All students are assigned to activity according to written medical prescription by the University Health Service. The types of disabilities are largely orthopedic in nature with a variety of associated neurological disturbances, organic manifestations and post-surgical conditions.

The therapeutic exercise unit was conducted from 3:30 to 5:30 Monday through Friday. This unit averaged 40 students per six weeks period for four periods. An average of 120 treatments per week were administered. The types of modalities and testing used are progressive resistive exercise, passive exercise, active exercise, muscle re-education, manual muscle testing, range of motion testing, gait analysis, electrical testing and general conditioning.

Adapted sports and follow-up therapy have been offered to students beyond the required program if medically indicated.

. Department of Physical Education for Women

(1) Undergraduate Professional Preparation Program

The most effective change in the major program has been a re-organization of the counseling system. After this year no faculty member will counsel more than twenty students and an advising and check sheet was devised which clarifies to the student his status and the requirements to be fulfilled for graduation. Counseling can now become more individualized and can be flexible enough to meet student needs.

A course in elementary physical education was designed and approved for sophomore majors in the School of Education This semester course will be a substitute for one semester of general physical education. The success of this program will aid in giving the children of the Commonwealth a better

opportunity for a developmental physical education program.

A departmental committee presently is evaluating the major curriculum. The major accomplishment has been a change in the skills program. Activity areas have been changed in keeping with those expected in junior and senior high school teaching. Also, a re-scheduling of the skills program will facilitate more individualized enrollment to assure teaching competency.

(2) General Program

A departmental committee has been evaluating this program most effectively. Four proposals have been implemented this year. Many activities have been offered on the intermediate level to aid students in successfully developing their skill to a more rewarding level. Selective activities have been offered on a semester basis rather than a quarter basis. This has met with success both from the students' and the teachers' viewpoint. Beginning activity course outlines have been developed with suggested evaluation measures to insure consistency in covering program skills.

The adaptive program for the University student has been evaluated with the Medical Staff and policies for cooperative measures have been formulated to benefit the student. The committee is working on a long-range basis and more changes in programming are foreseen.

(3) Women's Athletic Association

The program offered by the WAA is composed of the intramural, extramural, and associated clubs. Maiads, the Dance Club, and the Gymnastic Club fulfilled the need for spectator formal program presentation. Membership is elective upon competent completion of selective physical skills. The intramural program fulfills the needs of organized informal recreation for the women of the University. As an educational institution grows in student population, this program is supported to a lesser extent by the students. The department must discover new means to arouse interest in intramurals for women. The extramural program which is composed of invitational meets in a variety of activities is expanding. At the present time, the department has under consideration policies to insure all the values of athletic participation for women and to deter those hazards which would be detrimental to the University and to the student. The extramural program results in a higher level of competition, but is not the reason for the program.

d. Department of Recreation

A searching analysis of professional positions and professional education in recreation has resulted in

a proposal for a sweeping revision of the undergraduate curriculum, now in process of approval. It is believed that this new approach will be the best in the nation.

e. Graduate Program

The School Graduate Program in Physical Education showed a growth of 20% over academic year 1963-1964. Of the sixteen students completing their degree work this year, eight have already been placed in college level positions.

7. Special Projects

Department of Recreation

A partial answer to the severe shortage of professional personnel in the field and to our own needs in recruitment of major students is believed to be the inauguration of a two-year major in recreation at Greenfield Community College, due to start in September 1965. The Department of Recreation has worked closely with officials at the College in this development, which is believed to be the third in the nation. The terminal two-year students will be well-prepared to enter certain lower professional-type positions. The students who plan to transfer to the University will have completed a program almost identical to the lower division requirements for recreation majors here.

It is obvious that a special program for recruitment of recreation majors is needed. This career field is almost unknown among high school guidance personnel and professionals in the field are almost completely inactive in recruitment. Therefore, the Department is in process of mounting an intensive recruitment effort.

8. Future Plans and Needs

a. Department of Athletics

(1) Delay in expected construction on Alumni Field allowed both Baseball and Track to use that facility during the Spring season. However, it appears that for the 1965-1966 year the University will be without an Outdoor Track and a second Baseball diamond. These are critical facility needs.

(2) Development work on the second section of the field area is under way and a real need in this section is an all-purpose dressing facility as a wing of the urgently needed artificial ice hockey rink. Also to complete a first-class baseball facility the existing diamond should be enclosed with appropriate fencing and to include

grandstand and dugouts.

b. Department of Physical Education for Men

(1) Facilities

The urgent need for high priority Capital Outlay consideration for the development of outdoor instruction areas has been developed in detail in previous Annual Reports.

Recognition of present inadequacy, budgetary support and early development of these facilities is imperative to meet the demands of increased enrollment and program development.

(2) Personnel

The number of full-time staff required to meet future instructional needs will be proportionate to enrollment increases and program expansion planned through the current provision of modern indoor facilities and the future development of outdoor instructional areas.

The extent to which graduate assistants may be used to supplement full-time staff is dependent upon the number of assistantships allocated to the Department. In the interest of maintaining the high caliber of instruction and the respect that the program enjoys, as a part of the University Core Curriculum, it is essential that at least 50% of the instructional load in this area continue to be assigned to the full-time faculty.

(3) Budget

The increase in the number of sections and in the number of teaching stations has placed greater demands upon the quality and quantity of equipment required to support activity and laboratory classes. Growth of the Intramural and Saturday and Sunday voluntary "free play" programs results in a need for larger inventories of game equipment required to support these programs which is provided by the Department. The budget under 13 Account must therefore be sufficient to procure equipment for scheduled classes, voluntary programs and maintain an inventory which is adequate to meet contingencies.

The provision of new laboratory facilities and activity teaching stations, made possible by the occupation of Boyden Building will require adequate allotment in 12 Account. In the interest of economy and in consideration of the increased use of equipment it is unrealistic to assume that a defensible program of preventative maintenance can be maintained on a totally inadequate budget. Evidence of this inadequacy is reflected by the current 12 Account budget in which the allotment to the School is less than that required and justified by the Department.

It must be recognized that the maintenance of certain new electronic laboratory, closed circuit television and automatic pin setting equipment can no longer be programmed on a budget previously sufficient only to provide for the restringing of tennis racquets.

(4) Closed Circuit Television

Facilities for closed circuit television were approved for installation in Frank L. Boyden Building in order to broaden the range of educational offerings within the School and raise the quality of offerings by making available resources which formerly were unavailable or inadequate. The use of such equipment, particularly in the teaching of motor skills, offers the unique advantage of self critique to students which contributes to the acceleration of learning when performances are taped and immediately played back for evaluation by students and instructors.

Excellent equipment, compatible with that currently in use on the campus, has been ready for use since May 1965. The nature of this electronic equipment is such that its use cannot be instituted until such time as a full-time qualified Television Technician, experienced in maintenance as well as programming can be assigned to the School.

c. Department of Physical Education for Women

(1) Curriculum

(a) During 1965-66 a pilot study on a movement education course for the general program will be initiated. The course will select freshman women on a random basis from all scheduled sections. The use of team teaching will be implemented. If this course is successful and meaningful to students and teachers, it will become a part of the general program in 1966-67.

(b) With the consent of the faculty, the professional preparation skills program will be revised next fall. The skills program now is directed to a generalist training in physical education. Next year plans will be made to train a generalist with an area of emphasis in elementary school activities, equatics, gymnastics, dance or sports. The major will choose one area of emphasis.

(c) A pilot study will be implemented by Dr. Joan Tillotson on movement education for elementary school children. The plans for this project will be formulated this fall.

(d) There is need to offer summer workshops for teachers presently in the field of physical education in the Commonwealth. With the competencies of the

faculty, advanced skills and techniques in short term workshops could be available for credit. This is common practice in departments where professional preparation is offered on both undergraduate and graduate levels.

(2) Facilities

The growth of the student population of the University has created a critical need for additional indoor and outdoor facilities. In the winter, the Women's gymnasium is used to peak capacity. The department does not wish to curtail its program, but desires to maintain growth with the University standards. This is the most immediate need to be considered today.

d. Department of Recreation

The need for a Graduate Program in Recreation continues to grow and it is now hoped that such a program can begin in September 1966.

Provision of instruction for other departments continues to grow although temporary reduction during the current year became necessary for various reasons. Instruction is provided for majors in Physical Education for Men, Physical Education for Women, Nursing, Forestry, Park Administration, and Arboriculture and Park Management (Stockbridge). The most recent request is to add the fifty freshmen in the Stockbridge Turf Management program to this list. As these other majors grow in enrollment, as perhaps other departments ask for recreation courses, and as the number of majors, courses, and programs in the Department of Recreation increase, additional faculty and improvement of facilities will be needed.

There is a great need for a strong, broad extension program in recreation and a list of potential projects and services has been developed. The Department is extremely anxious to develop such a program.

In the area of facilities, the most pressing need is for remodelling and renovation of the upper level of the Hicks Building. One portion of this project will be accomplished during the summer of 1965 in conjunction with development of temporary accommodations for the expanding staff of the School of Medicine. The remainder of this project has not yet been authorized, but is urgently needed.

Plot 6, the woods north of the new stadium, is to be developed as a campus outdoor recreation facility to provide for instruction in recreation and also to serve as a facility for campus recreation. A portion of this area has been made available to the 4-H office for the future location of Farley and Bowditch Clubhouses.

e. Summary

(1) Facilities

The School of Physical Education is particularly concerned with the need to provide certain facilities to meet demands of increased student numbers in both Physical Education and Athletics. Immediate needs of the School are as follows:

(a) The development of Plot 2 is projected to be started in the Spring of 1966. This will provide Athletics and Men's Physical Education with desperately needed outdoor playing fields.

(b) The projected Hockey Arena which would include dressing facilities for Athletic Teams utilizing fields and areas in Plot 2 is badly needed. It is hoped that architects' fees will be realized in the next fiscal year.

(c) The need to add additional teaching stations and offices to the Women's Physical Education Building should receive high priority consideration. The present building was inadequate at the date of construction (1957) because of lack of funds.

(2) Personnel

The School of Physical Education is in critical need of faculty in the Associate Professor and Professor rank. This need has become more apparent with the growth of the Graduate Program. The number of School personnel eligible for membership in the Graduate Faculty is presently six. This has imposed unreasonable work load requirements on these faculty members. The School will continue to endeavor to upgrade the staffing pattern to reach a balance in rank and capability.

APPENDIX

Personnel by Department

1. Department of Physical Education for Men

	1962-63	1963-64	1964-65
Department Head	1	1	1
Professor	2	2	2
Associate Professor	3	3	2
Assistant Professor	3	3	3
Instructor	4	6	6

2. Department of Physical Education for Women

	1962-63	1963-64	1964-65
Department Head	1	1	1
Associate Professor	4	4	4
Assistant Professor	3	2	3
Instructor	3	2	4
Part Time Instructor	2	2	2

3. Department of Recreation

	1962-63	1963-64	1964-65
Professor	1	1	1
Assistant Professor	1	*	*
Instructor	1	2*	1

Students Served by Department

1. Department of Physical Education for Men

	1962-63	1963-64	1964-65
Majors	162	167	191
General Program	1796	2068	2202
Students Taught	2363	2653	2969

2. Department of Physical Education for Women

	1962-63	1963-64	1964-65
Majors	65	73	90
General Program	1440	1512	2127
Students Taught	1668	1767	2479

3. Department of Recreation

	1962-63	1963-64	1964-65
Majors	44	32	34
Students Taught	110	173	134

*One Assistant Professor on leave.

Intercollegiate Sports Participation

Seasons 1962-1963, 1963-1964, 1964-1965

SPORT	1962-1963 GAMES VAR.	FR.	NO. MEN	1963-1964 GAMES VAR.	FR.	NO. MEN	1964-1965 GAMES VAR.	FR.	NO. MEN	1964-1965 VARSITY W	L	T
Football	9	5	111	9	5	100	9	5	120	8	1	0
Cross Country	11	7	40	10	8	45	9*	7	45	4	5	0
Soccer	10	4	62	9	4	68	10	6	60	5	4	1
Basketball	24	17	37	24	12	35	24	13	37	13	11	0
Gymnastics	7	9	65	4	7	70	8	8	63	1	7	0
Hockey	16	5	65	17	5	60	15	5	50	4	11	0
Swimming	10	7	36	10	7	35	10*	7	30	6	4	0
Track (W)	7	6	62	8	5	55	8**	5	70	3	2	0
Wrestling	10	5	40	11	6	38	11*	6	35	6	4	1
Pistol	12	-	15	15	-	12	7	-	12	26	6	0
Rifle	19	-	12	12	-	12	7	-	10	5	2	0
Ski	9	-	20	8	-	20	9	-	15	54	11	0
Baseball	20	10	62	19	11	65	18	9	62	7	11	0
Golf	13	4	27	12	5	24	11**	5	22	3	8	0
Lacrosse	11	4	75	11	5	75	11	5	72	2	9	0
Track (S)	7	5	90	7	5	85	6**	5	75	1	5	0
Tennis	10	4	31	11	4	30	11**	5	28	10	1	0

* New England Championships included

** Yankee Conference Championships included

Does not include Stockbridge teams

Department of Public Health

ANNUAL REPORT

July 1, 1964 - June 30, 1965

University of Massachusetts

Amherst, Mass.

I. Appropriation

	1962-63 (Appropriations)	1963-64 (Appropriations)	1964-65 (Appropriations)
03	$1,050.00*	$1,450.00**	$2,400.00**
06	100.00	-	-
10	200.00	200.00	850.00
11	100.00	-	-
12	100.00	100.00	200.00
13	500.00	600.00	1,600.00
14	100.00	100.00	250.00
14.1	-	-	300.00
15	2,000.00	1,400.00	6,200.00

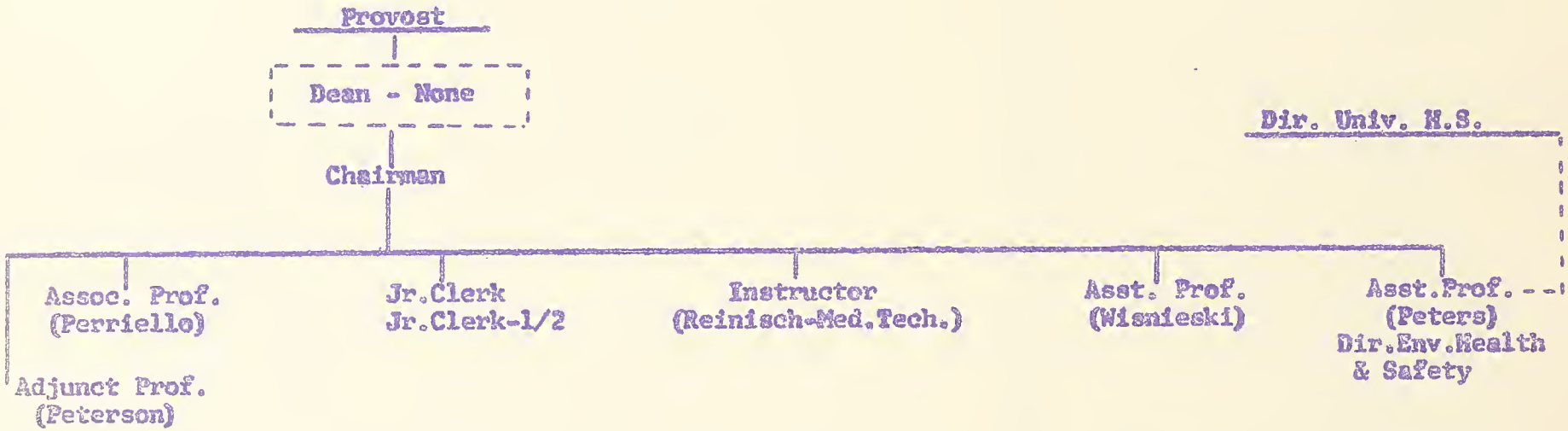
* Graduate assistants (03) provided in Microbiology budget. Also, entire cost of Preparation Room carried by Microbiology Department.

** Entire cost of Preparation Room carried by Microbiology Department.

II. Personnel

	1962-63	1963-64	1964-65
Chairman, part-time	1	1	1
Associate Professor	1	1	1
Assistant Professor (formerly Instructor & part-time Sanitarian)	1	1	1
Assistant Professor, part-time (Director Env.Health & Safety)			1
Instructor		1	1
Adjunct Professor Peterson		1	1
Secretary (Jr.-Clerk Typist)	1/2 time	*1/2 time	1
(Jr.-Clerk Steno.)			1/2

* plus considerable extra time on hourly basis.


Provost
Dean - None
Chairman
Dir. Univ. H.S.
Assoc. Prof.
(Perriello)
Jr.Clerk
Jr.Clerk-1/2
Instructor
(Reinisch-Med.Tech.)
Asst. Prof.
(Wisnieski)
Asst.Prof.
(Peters)
Dir.Env.Health
& Safety
Adjunct Prof.
(Peterson)

IV. Students

		1962-3	1963-4	1964-5
(a) Majors:	1. Med. Tech.	25	53	70**
	2. Public Health	14	30	36**
	3. Public Health (Grad.)	14	11	14
(b) Students taught:				
	1. Univ. of Mass.			
	1st sem.	180	175	219
	2nd sem.	0*	268	311
	2. Stockbridge	108	85	86

*Records incomplete.

**On basis of current records, 4/30/65. Dropouts and additions after Feb., 1965 taken into account.

V. Publications and Significant Activities.

Mr. Perriello

Publications:

1) "Bacteriology of Milk, Milk Products and Food", Mass. Journal of Milk & Food Tech.

Speaking engagements:

2) Sept. '64 - Speaker at Yankee Conference of Regional Sanitarians' Meeting.
3) Jan., '65 - Speaker at Annual Meeting of Mass. Milk Inspectors' Assoc.
4) Apr., '65 - Speaker at Third Annual Educational Conference of R.I. Sanitarians.
5) May, '65 - Seminar speaker at In-Service Course on Env. Health (sponsored by Mass. Dept. of P.H.; Univ. of Mass.; U.S. P.H. Service, on subject of "Rodent and Insect Control".
6) May, '65 - Seminar speaker at In-Service Course on Environmental Health (sponsored as preceding) on subject of "Laboratory Analysis of Food, Milk, and Water."
7) May, '65 - Seminar speaker at 2nd In-Service Course on Env. Health (sponsored by Mass. Dept. of P.H., Division of Sanitary Engineering; Univ. of Massachusetts; and U.S. Public Health Service.) Subject: "Industrial Safety", as part of the Water and Sewage Seminar section.
8) June 16-18, '65 - Speaker at New England Public Health Assoc. Meeting, Stratford, Conn.

Other Significant activities:

9) Secretary, Massachusetts Board of Registration of Sanitarians.
10) Chairman, Program Committee, Mass.Milk Inspectors' Assoc., Int'l.Assoc.
11) Member, Education Committee, Massachusetts Sanitarians' Association.
12) Consultant, Civil Service in Health Education.
13) Member, Public Health Disciplines Committee of Nat'l. Assoc. of Sanitarians.
14) Chairman, Section Rodent & Insect Control, In-Service Course on Environmental Health, sponsored by Mass. Dept. of Public Health; Univ. of Massachusetts; and U.S. Public Health Service.

Mr. Wisnieski

1) Member, Amherst Board of Health.
2) Chairman, Program Committee, Massachusetts Public Health Assoc.(fiscal '64-'65).
3) President-elect, Massachusetts Public Health Association.
4) Chairman, Educational Committee, National Assoc. of Sanitarians.
5) Fellow, American Public Health Association.
6) Peace Corp Coordinator of Public Health Training at Brandeis Univ., Bolivia group, July-November, 1964.
7) Consultant, Peace Corp P.H. Training, Experiment in International Living, Putney, Vt. (Brazil group), August-September, 1964.
8) Prepared short course, "Bacteriology for Hospital Housekeeping", to be offered in July, 1965.
9) Building Committee, Q.T.V. Alumni Corporation, Q.T.V. Fraternity.

Dr. Peters

Publications:

1) Abstracts of research activities entitled, "Nutritional Requirements of Enterotoxigenic Strains of Staphylococcus Aureus" were published in the Journal of Environmental Health and the Journal of Milk and Food Technology.

Speaking engagements:

2) Presented talk at National Association of College and University Food Services, Region I, Conference, January 29, 1964.

Other Significant Activities:

3) Chairman, Section on Radiological Health, In-Service Course on Env. Health, sponsored by Mass. Department of Public Health; Univ. of Massachusetts, U.S. Public Health Service.
4) Attended New York Academy of Sciences Conference on Staphylococcus Aureus, New York, N.Y., Oct., 1964.
5) Attended annual meeting of the American College Health Assn., Miami Beach, April, 1965.
6) Completed requirements for Ph.D. degree, University of North Carolina.
7) Awarded faculty research grant (FR-W11-65-Peters(1)) for continuing study of Staphylococcal food poisoning.

Mrs. Reinisch

Speaking engagements:

1) Gave Medical Technology recruiting talks at South Hadley High School.

Other significant activities:

2) Member, Massachusetts Thoracic Society.
3) Director at Large and Board Member, Massachusetts Tuberculosis & Health League.
4) Honored for years of service in Massachusetts Tuberculosis & Health League, May 5, 1965.
5) Chairman, Program Committee, Holyoke Tuberculosis and Health Assoc.
6) President, Pioneer Valley Medical Technologists' Assoc.
7) Co-chairman, Recruiting Committee, Mass. Assoc. of Medical Tech.
8) Chairman, Medical Technology Exhibit at National Science Teachers' Assoc. Regional Conference, Westfield, Mass., October, 1964.
9) Judge of scientific papers submitted for awards to Mass. Medical Technology Society.
10) In charge of arrangements for Blood Banking Seminar (1 day) on Univ. of Massachusetts campus.
11) Member, Western Branch of American Personnel and Guidance Association.
12) Attended Sixth Postgraduate Course in Medical Technology in Denver, Colo., 3/13-3/20/65.
13) Attended Spring Seminar of New Hampshire Society of Medical Technologists at Colby Junior College, New London, N.H., 5/14/65.
14) Attended Med.Tech. Regional Seminar on Personnel Relations and Management at Windsor, Conn., 5/21/65.
15) Awarded Faculty Research Grant (FR-W11-65-Reinisch(1)) to work with Leo Hall, Infirmary Laboratory, on "A Micro-technique Applied to the Heterophile Antibody Test for the Detection of Infectious Mononucleosis."

Dr. Peterson

Speaking engagements:

1) Gave seminar at UCLA School of Public Health.
2) Gave major address at World Health Conference, Southern California Committee for World Health Organization.
3) Addressed New England Health Educator's Association 40th Anniversary Meeting.
4) Was luncheon speaker at North East Section, Association Food Science and Technology.
5) With Dr. Vera Joseph Peterson, gave Commencement Address to Massachusetts General Hospital School of Nursing.

Other significant activities:

6) Elected to Board of Directors, National Citizens' Committee of World Health Organization.
7) Elected to Board of Directors, American National Council for Health Education of the Public.

VI. Major Accomplishments of the Department (1964-65)

The most significant activity during the past academic year has been the development of the program in medical technology, implementing the decision to establish a 3+1 program for qualified medical technology majors. An agreement was made with the Holyoke Hospital and in June, 1964 the first student was placed there for training. Two additional students entered the program in September, 1964. The plan is for these students to spend 12 months in the program of training in clinical laboratory practices, in a combination of lectures, demonstrations, practical exercises, and individual projects. In addition, a weekly seminar is held, either at the University or at the Hospital under the guidance of Mrs. Edith Reinisch, our faculty member in charge of the program.

In general, this first year has been an outstanding success. The few problems which have arisen are being resolved without any anticipated difficulty. A comparable agreement has been reached with the Franklin County Public Hospital, in Greenfield, and 3 students will enter training there in September of this year.

From now on the growth of the medical technology program promises to be rapid, with acceleration of the rate of increase anticipated as there is more general knowledge of the availability of this program. It is expected that we shall reach agreements with other hospitals to expand the training resources to other institutions. In doing so, however, expansion will be limited to include only those students who can be supervised properly with the resources available to the Depart-

ment. Marginal students will not be permitted to enter the 3+1 program, since a 2.0 cumulative average has been established as a minimum qualification for admission to the hospital training program in the fourth year.

The other very significant development during the past year has been the appointment to the faculty, in cooperation with the University Health Services, of a Director of Environmental Health and Safety. We are extremely fortunate in having attracted to this position Howard A. Peters, PhD., who has had considerable experience in administration of environmental health programs and is a recent graduate of the School of Public Health of the University of North Carolina.

In establishing this position it was decided to incorporate all activities of the campus involved with environmental health and safety, except for fire safety, thus creating a position of considerable responsibility, and one which would provide a thoughtful challenge to a well-trained and energetic worker. The job description (see Appendix I) presents a comprehensive outline of his duties.

The Director of Environmental Health and Safety is responsible primarily to the Director of University Health Services for administrative direction. He also holds the position of Assistant Professor in the Department of Public Health, where it is anticipated he will be most active with the guidance of graduate students.

Another significant activity has been completion of plans for the first course in Basic Housekeeping. This is a course of instruction which has been developed in cooperation with the Massachusetts Hospital

Housekeeper's Association and has been intended as a means of offering instruction to those responsible for hospital housekeeping practices in modern, approved housekeeping techniques. It is hoped that this training program, to be held in July, will be the first of a series of similar training programs through which the resources of this Department and other related agencies can be coordinated and presented as a service to organizations and individuals throughout the Commonwealth.

Preliminary enrollment in this course at the time of writing indicates that some 40 hospital housekeeping supervisors will participate in the training program, coming mainly from Massachusetts but also from New York (10 registrations), New Hampshire (3 registrations), Connecticut (2 registrations), and Missouri (1 registration).

VII. Special Projects

In cooperation with the Massachusetts Department of Public Health and the United States Public Health Service, the Department participated in an In-Service Course on Environmental Health during the month of May, 1965. This series of seminars, dealing with specifics in the control of Public Health problems, was well-attended by directors, as well as by rank and file members of many town and city health departments. Our faculty member, Robert Perriello, was a consultant and arranged for the Department's participation in this coordinated project.

Students and faculty of the Department have become involved in the Federal sponsored Migrant Labor Program. Five public health majors are to be employed during the summer in supervising the several Massachusetts

districts or working as office assistants to the director of the program in Massachusetts, Dr. Mona Hull. The faculty member, Professor Karol Wisnieski, has been engaged as Field Coordinator of the project in Massachusetts this summer.

VIII. Future Plans and Needs

During the past two years, considerable thought has been given to the manner in which the Department of Public Health should expand its activity. The Public Health Planning Committee, appointed by President Lederle late in 1963, has continued to meet during the early part of this year and submitted its report and recommendations to the President in November, 1964. (See Appendix II.)

The first step in implementing the recommendations of this Public Health Planning Committee has been the appointment of a faculty member in Health Education. William Darity, Ph.D., who has had extensive experience in the development and administration of health education programs both in this country and for the WHO, and who has been responsible for the academic program in health education at the American University in Beirut, will be given the mandate for developing a new program in Health Education for the Department. It is expected that he will have immediate contact with the program of instruction in Health Education by presenting the courses in this area for the School of Physical Education during the coming school year. In addition, it is expected that Dr. Darity will be available to offer guidance and direction to the closely related courses of instruction elsewhere in the University,

especially in the School of Nursing and the School of Education. It should be pointed out that, although undergraduate students are entitled to the best of instruction, it would not be wise for Professor Darity's talents to be consumed in the presentation of a basic service course in Health Education. It is our feeling, with which Dean McGuirk agrees, that instruction in health education should be given by the best-qualified individual available. The probable expansion of the basic courses in Health Education will make it necessary for an additional faculty member to be appointed in the relatively near future.

It has been hoped that we could also appoint a Sanitary Chemist to enrich the present program in Environmental Science. However, the number of qualified applicants is extremely limited, and our search began too late to be successful for the beginning of the academic year. The search will be continued with the hope that the position can be filled for the beginning of the second semester. The appointment of the Sanitary Chemist is felt absolutely essential to the proper development of this environmental science program, especially at the graduate level.

Indecision concerning the site of the School of Medicine has presented this Department with its greatest problem during the past year. It was the recommendation of the Public Health Planning Committee that the Department be responsible to the Chairman of the Department of Preventive Medicine of the School of Medicine when he was appointed. At the time this recommendation was made it was anticipated that the decision for the location of the School was imminent. Over seven months elapsed before the decision was announced and it is not yet certain

that this decision is final.

It appears that, whether the decision to locate the School in Worcester is final, or is to be reconsidered, the Department of Public Health has a serious problem. It is impossible for the Department to meet the demonstrated need for instruction, service, and research without the guidance of a full-time head of department who can devote all of his energy and time to its growth and development. Without additional full-time guidance, it will be impossible to support the Department's activities in a manner which will justify continuation of the graduate program. This graduate program, in itself, is an absolute essential if the Department is to maintain its vitality and serve its function as a training source for public health workers in the state.

It is planned to call another meeting of the Public Health Planning Committee prior to the beginning of school in the Fall, in order to reassess the recommendations made previously in the light of plans for development of the School of Medicine.

The Department has received rather scanty support in the past, especially for basic equipment. This has been partly because we have been able to use considerable equipment in cooperation with the Department of Microbiology, and partly because the program of the Department made only modest demands for equipment and personnel. The time has come now, however, when some major commitments must be made for equipment, if the Department is to serve its purpose in a realistic manner. It will be necessary, within the next two years, now that space is being made available by the opening of Morrill 4, to make major equipment commitments for a sanitary chemistry laboratory and a radiological

training and assay laboratory. Attempts will be made to secure training grants from the United States Public Health Service for support of the major portion of these new programs. It is unlikely, however, that the programs can be supported entirely from this source. Significant basic support will have to be forthcoming from the University.

The past year has been one in which the Department has gained new perspective and has made significant progress in developing a realistic program of instruction, service, and research. The beginning of this program leaves us with great hopes for the future, many unmet needs, and the confidence that, because of the basic importance of the program, these needs will be met as they arise in the future.

Robert W. Gage, M.D.
Chairman, Department of
Public Health

RWG:gj

DIRECTOR OF ENVIRONMENTAL HEALTH AND SAFETY - UNIVERSITY OF MASSACHUSETTS

General Statement of Purpose

Creation of the position of Environmental Health and Safety Officer, University of Massachusetts, reflects recognition by the University that as the community increases in numbers and in density of population and as the industrial and research activities proliferate, the environmental hazards to members of the community increase in number and become more serious. The aims of the University can be served properly only if the members of the community and their environment are adapted to each other in a mutually healthful, safe, and productive relationship.

The establishing of appropriate standards and procedures by the University will insure this adaptation under conditions of maximum safety for the population and optimum progress in the pursuit of its educational, service, and research goals. This is an expression of an intent on the part of the University to establish a comprehensive University health program.

General Statement of Duties.

To plan, supervise, administer, coordinate, and carry out service, educational, and research functions in the areas of sanitation, industrial hygiene, radiation health, and safety as they relate to students, faculty, and employees of the University or to others who are participating in or observing any aspect of a University program or activity. Functional relationship will be in an advisory capacity to the Director of University Health Services. Enforcement will be a responsibility only by specific administrative direction.

A. In the area of sanitation these shall include responsibility or concern for:
   1. Food
      (a) Sanitary storage, preparation, and serving of all food in all food services (University boarding halls, Student Union cafeteria, fraternities, sororities, all food vending areas, and all temporary food services wherever located on the campus or premises of the University of Massachusetts).

      (b) Prompt and sanitary cleaning of food service areas and utensils; sanitary disposal of waste.

      (c) Instruction of all food service workers in sanitary work procedures.

      (d) Investigation of any known or suspected violation or neglect of sanitary food handling practices, including the possible cause of any known or suspected food-related illness.

      (e) Consultation in planning, maintaining, and renovating food service areas.

   2. Housing
      (a) Inspection of dormitories and other campus housing areas. Make recommendations for improvement of sanitation, renovation, removal of safety hazards, etc.

(b) Inspection of fraternities and sororities. Make recommendations and assist planning for improvement of sanitation, renovation, removal of safety hazards, etc.

(c) Inspection (in cooperation with the Housing Office) of all off-campus housing areas or units which are considered for approval. Define improvements necessary to meet sanitary code.

(d) Consultation with Housing Office concerning standards of sanitation in both on-campus and off-campus housing units.

(e) Advice to Dean of Students of conditions in residence halls, fraternities, sororities, and off-campus housing which require disciplinary action.

(f) Consultation with architects, and Physical Plant Department concerning planning new residence facilities and renovating existing units for sanitary and safe use. Keep informed of progress in these matters in other college and university building programs. Serve as member of Building Committee for residence halls.

(g) Enlisting cooperation of other agencies both on and off campus (local boards of health, building inspectors, fire marshal, etc.) in performance of duties.

(h) Organizing educational meetings with student groups, heads of residence, fraternity managers, etc. regarding control of environmental health factors in housing.

3. Swimming Pools

(a) Inspection of all University controlled swimming facilities at regular and irregular intervals.

(b) Arranging testing of pool water samples and interpreting results.

(c) Making recommendations for improvement of sanitation and safety in operation and management of pools.

4. Rodent and Insect Control

(a) Prevention, location, and control of vector infestations on campus. Cooperation with local health authorities in similar functions near campus.

(b) Arranging inspection of any area of campus for possible vector infestation.

(c) Re-inspecting previous areas of infestations to locate recurrence.

(d) Evaluating complaints of students, faculty and staff regarding vector infestations.

(e) Advising or arranging consultation regarding vector control methods.

(f) Planning general vector control programs.

(g) Assisting in training program for custodial and maintenance staff in vector control measure.

5. Waste Disposal

(a) Inspection of waste disposal methods in residence halls, food service areas, laboratories, and other University facilities to evaluate effectiveness.

(b) Inspection of waste disposal sites (dump, etc.) and making recommendations for management.

(c) Consultation with University personnel (heads of residence, custodial staff, Housing Office, etc.) concerning operation of present waste disposal services.

(d) Recommendations for long-term provision for waste disposal for both present and anticipated population and activities.

(e) Consultation with Physical Plant Department and architects in plans for incinerators and other waste disposal facilities.

(f) Consultation with local health and municipal officials concerning common waste disposal problems.

6. Epidemiological Investigations:

(a) Receiving reports of communicable diseases and animal bites from the University Health Service.

(b) Investigating, in cooperation with municipal and state officials, epidemiology of communicable diseases in the University community and other nearby communities.

(c) Recommendation of control measures for communicable diseases.

(d) Reporting communicable diseases and animal bites to municipal health departments and State Department of Public Health.

(e) Planning educational programs for students, faculty, and staff relevant to communicable disease problems.

7. Water Supply

Surveillance of water supply system to insure strict conformity with Sanitary Code of Massachusetts and standard sanitary plumbing practices. (Special attention to renovation of buildings and modifications of existing installations.)

B. <u>Industrial Hygiene</u>

In the area of industrial hygiene there shall be a concern for:

(a) Investigation of environmental working conditions in laboratories,

shops, storerooms, garages, barns, fields, etc., throughout the University.

(b) Maintenance of assured safe conditions of work or occupancy in all areas in which humans are permitted.

(c) Determination of allowable conditions and limits of exposure to known controlled hazards.

(d) Recommendation of methods for investigation and/or control of industrial environmental hazards including evaluation of lighting, ventilation, dust, fumes, gases (both poisonous and noxious), safety precautions, housekeeping standards, noise levels, microbiological contamination, etc. Consultation with all University personnel regarding anticipated or possible hazards associated with introduction of new materials and/or methods. Education of students, faculty, and staff to a basic concern for environmental hazards.

C. Radiation Health

In the area of radiation health (health physics) these shall include service as administrative assistant to the Radiation-Use Committee in its functions as outlined in the "Manual of Radiation-Use Committee and Radiation Safety Practices." These functions are:

(a) To provide to the University a centralized source of information on the use and the procurement of radioisotopes, labeled compounds, instruments, etc.

(b) To obtain and hold in the name of the University, a license from the Atomic Energy Commission for purchase and possession of the various "hazardous items" required by University personnel.

(c) To review and approve with regard to safety, proposals by University personnel for the use of "hazardous items."

(d) To concern itself with radiation safety in the use of "hazardous items" by University personnel. The safety standards shall be those formulated by the Atomic Energy Commission and other regulatory agencies. The committee will insure that proper safety procedures are understood and practiced by all users of "hazardous items."

(e) To maintain a set of records, centrally located, dealing with all phases of work with "hazardous items" at the University. These records will include, e.g., the following information relative to radioisotopes: all work in progress; the calendar dates of amounts of materials procured, stored, dispersed and disposed; and radiation dosage records of all users. Similar records will be collected and maintained on the "hazardous items" other than the radioisotope records.

An additional responsibility will be that of planning for members of the University Community , educational programs to instruct them in an

understanding of and concern for radiological health hazards.

D. Safety

In the area of safety these shall include a concern for:

(a) Cooperating actively with the Fire Marshal, Security Officer, Housing Office, Maintenance Department, Athletic Department, and all other personnel, to recommend measures for eliminating safety hazards and promoting safe operating attitudes and practices.

(b) Maintaining active and prompt reporting of accidents and maintaining accurate records of accidents in buildings, on walks and roads, and on athletic fields.

(c) Analyzing reports of accidents for common denominators and causal factors.

(d) Consulting with Physical Plant Department and architects regarding incorporation in the design of new buildings maximum provisions for safe maintenance and operation.

(e) Consulting with clerk of works and building contractors to minimize safety hazards related to new construction.

(f) Consulting with Security Officer and others for prevention or control of safety hazards related to mass gatherings.

(g) Planning and administering educational programs designed to encourage all members of the University community to think, plan, and work with a basic safety orientation.

IN SUMMARY, the Committee makes the following recommendations:

(1) That changes be effected in the undergraduate curricula that are outlined herein, to provide all baccalaureate candidates a strong fundamental background in the main areas of public health and an initial opportunity for exploring special interests. Especially important is incorporation in the curricula of existing resources in the social sciences.

(2) That undergraduate curricular changes be effected beginning with the guidance of lower division students in the 1964-65 school year.

(3) That the Department of Public Health be a responsibility of the Chairman of the Department of Preventive Medicine of the School of Medicine, at least for the present.

(4) That two new full-time faculty positions be approved for 1965-66 (Coordinator of Extension Education, and Health Educator), in addition to the Head of Department, who will also be the Chairman of the Department of Preventive Medicine of the School of Medicine.

(5) That three faculty positions be approved for 1966-67. (See Preliminary Report for suggested positions.)

(6) That these measures be considered as possible initial steps toward the eventual establishment of a School of Public Health, and that the advisability of establishing such a school be given serious consideration in the near future. It is expected that the location of the School of Medicine will be a strong determinant in deciding the relationship of the Department of Public Health to the University and the time and place for establishing a School of Public Health.

ANNUAL REPORT

COLLEGE OF AGRICULTURE
UNIVERSITY OF MASSACHUSETTS

July 1, 1964 - June 30, 1965

C O N T E N T S

Significant Developments Since 1960-61

Appropriations

Personnel
- Number in Each Rank
- Full-Time Faculty Equivalent

Organization Charts
- College of Agriculture and Stockbridge School
- Massachusetts Agricultural Experiment Station
- Cooperative Extension Program in Massachusetts

College of Agriculture Research Projects

Instruction Program Data

Cooperative Extension Program Highlights

Civil Defense Training Program

Malawi Contract, AID/afr-62

Faculty Publications and Professional Activities;
Major Accomplishments; Special Programs and Activities;
and Future Plans and Needs by Departments

Agricultural Engineering
Agricultural and Food Economics
Cranberry Station
Entomology and Plant Pathology
Environmental Sciences
Feed, Fertilizer, Seed, Dairy Law
Food Science and Technology
Forestry and Wildlife Management
4-H and Youth Programs
Home Economics Extension
Landscape Architecture
Plant and Soil Sciences
Veterinary and Animal Sciences

COLLEGE OF AGRICULTURE - SIGNIFICANT DEVELOPMENTS SINCE 1960-61

Class enrollments up 17%.

Departmental majors up 26%.

Graduate student enrollment up 79%.

Average increased enrollment double that of other New England Colleges of Agriculture and $2\frac{1}{2}$ times greater than average increase in nation as a whole.

Twenty per cent more Ph.D.'s on faculty.

Technical-scientific publications increased almost fourfold, from 32 in 1961 to 114 in 1964.

Scientific journal articles up from 12 in 1961 to 93 in 1964.

Value of research grants and contracts 1961 - $248,000; 1964 - $644,000.

A member of the National Academy of Sciences appointed to the College faculty.

The first endowed professorship established - The Nicholas Appert Professorship in Food Science and Technology.

Departments of Agronomy, Dairy and Animal Science, Horticulture, Poultry Science, and Veterinary Science consolidated in new Departments of Plant and Soil Sciences, and Veterinary and Animal Sciences.

The Waltham Field Station and the Institute of Agricultural and Industrial Microbiology organized into a new Department of Environmental Sciences.

Consolidated all food science programs in a single department by transferring dairy and meat technology programs and personnel to the Food Science and Technology Department.

Aided University administration in establishing Office of University Relations and campus-wide duplicating and mailing services. Discontinued Department of Agricultural Communications.

Established interdepartmental Planning and Resource Development Center, Pesticide Information Center, and a Cooperative Fisheries Research Unit.

With the cooperation of County Boards of Trustees and County Commissioners, and the approval of the County Personnel Board, completed the "regionalization" of agricultural extension work throughout the state.

Pilot projects in Boston, Lynn, and Springfield to determine the effectiveness of extension teaching methods and materials to programs with low-income and disadvantaged families were successfully completed.

New Associate Degree programs established in Park Management, Laboratory Animal Management, and Wood Utilization.

New Bachelor Degree programs established in Park Administration, Wood Utilization, Wildlife Biology, and Resource Economics.

New graduate degree programs established in Fisheries Biology, and Agricultural Engineering.

Belchertown Horticultural Research Center established through gift from the Massachusetts Fruit Growers Association.

Outstanding Public Service Projects

City of Worcester - Public School Cafeterias Survey conducted at the request of Mayor Paul V. Mullaney by the Hotel and Restaurant Management staff.

County of Hampden - House of Correction Food Procurement Practices Study conducted by Hotel and Restaurant Management staff at request of Hampden County Commissioners.

City of Springfield - At the request of Mayor Ryan of the City of Springfield a study of the relocation of the wholesale food market necessitated by the construction of Route 91 was conducted by the Food Distribution staff of the department of Agricultural and Food Economics.

Office of Civil Defense - Conducted under contract eight Shelter Management Instructor Courses and eight Radiological Monitor Instruction Courses and seven conferences for community leaders and elected officials.

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1. Appropriation for the Fiscal Years 1962-63, 1963-64, 1964-65.

	1962-63	1963-64	1964-65
01	$ 2,019,273.04	$ 2,269,721.14	$ 2,307,000.00 (est.)
02	341,333.19	444,391.39	475,000.00 (est.)
03	51,000.00	52,085.00	62,800.00
04	3,075.00	1,100.00	2,125.00
05	400.00	400.00	600.00
06	460.00	400.00	600.00
09	70,000.00	71,300.00	69,300.00
10	37,000.00	37,500.00	39,100.00
11	8,500.00	8,500.00	7,600.00
12	20,800.00	21,800.00	21,800.00
13	31,650.00	33,080.00	34,500.00
14	10,000.00	10,000.00	19,400.00
15	28,000.00	10,000.00	33,300.00
16	9,000.00	10,800.00	12,500.00
18		18,915.00	
Totals	$ 2,630,492.03	$ 2,989,992.53	$ 3,085,625.00

01	[illegible]	[illegible]	[illegible]	[illegible]
02	[illegible]	[illegible]	[illegible]	[illegible]
03	[illegible]	[illegible]	[illegible]	[illegible]
04	[illegible]	[illegible]	[illegible]	[illegible]
05	[illegible]	[illegible]	[illegible]	[illegible]
06	[illegible]	[illegible]	[illegible]	[illegible]
07	[illegible]	[illegible]	[illegible]	[illegible]
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12	[illegible]	[illegible]	[illegible]	[illegible]
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14	[illegible]	[illegible]	[illegible]	[illegible]
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18	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]

2. Personnel - Number in Each Rank (September 1962, September 1963, September 1964).

Professional Personnel	Sept. 1962	Sept. 1963	Sept. 1964
Dean	1	1	1
Associate Dean and Director of Stockbridge School	1	1	1
Associate Director of Extension	1	1	1
Commonwealth Head of Department	1	1	1
Head of Department	14	14	11
Commonwealth Professor	2	1	1
Commonwealth Professor, 9 mo.		1	1
Professor	54	54	44
Professor, 9 mo.	4	4	5
Associate Professor	27	31	33
Associate Professor, 9 mo.	4	4	3
Assistant Professor	46	46	45
Assistant Professor, 9 mo.	10½	10½	8
Assistant Professor, 9 mo., ½ time			1
Instructor	24	25	20
Instructor, ½ time			4
Instructor, 9 mo.	1		3
Instructor, 9 mo., ½ time			1
Staff Associate	2	2	2
Visiting Lecturer			1
Sabbatical Leave			6
Leave Without Pay			3
School of Home Economics - Extension			
Professor	4	4	4
Associate Professor	4	4	4
Assistant Professor	1	1	1
Contract Personnel			8

COLLEGE OF AGRICULTURE ACADEMIC STAFF*

1964-65

	Full-Time Faculty Equivalent				Actual Faculty Positions
	Instruction	Extension	Research	Control	
Agricultural & Food Economics	5.0	7.5	5.5		18
Agricultural Engineering	5.0	3.0	3.0		11
Entomology & Plant Pathology	5.5	2.0	6.0	1.5	15
Environmental Sciences	1.5	6.5	8.0	3.0	19
Food Science & Technology	8.0	4.5	6.5		19
Forestry & Wildlife Management	5.5	4.5	5.0		15
Landscape Architecture	10.0	.5			10.5
Plant & Soil Sciences	10.5	6.5	10.0		27
Veterinary & Animal Sciences	4.5	6.0	9.0	7.5	27
Cranberry Station		2.0	5.0		7
Feed, Fertilizer, Seed & Dairy Law				8.0	8
4-H		4.0			4
School of Home Economics		9.0			9**
Total	55.5	56.0	58.0	20.0	189.5

*Does not include graduate assistants of any kind. Includes all staff with academic title.
**In College of Agriculture Extension budget, but actually in School of Home Economics.

E-6/15/65

COLLEGE OF AGRICULTURE AND STOCKBRIDGE SCHOOL
ORGANIZATION CHART

UNIVERSITY TRUSTEES

PRESIDENT

PROVOST

DEAN, COLLEGE OF AGRICULTURE

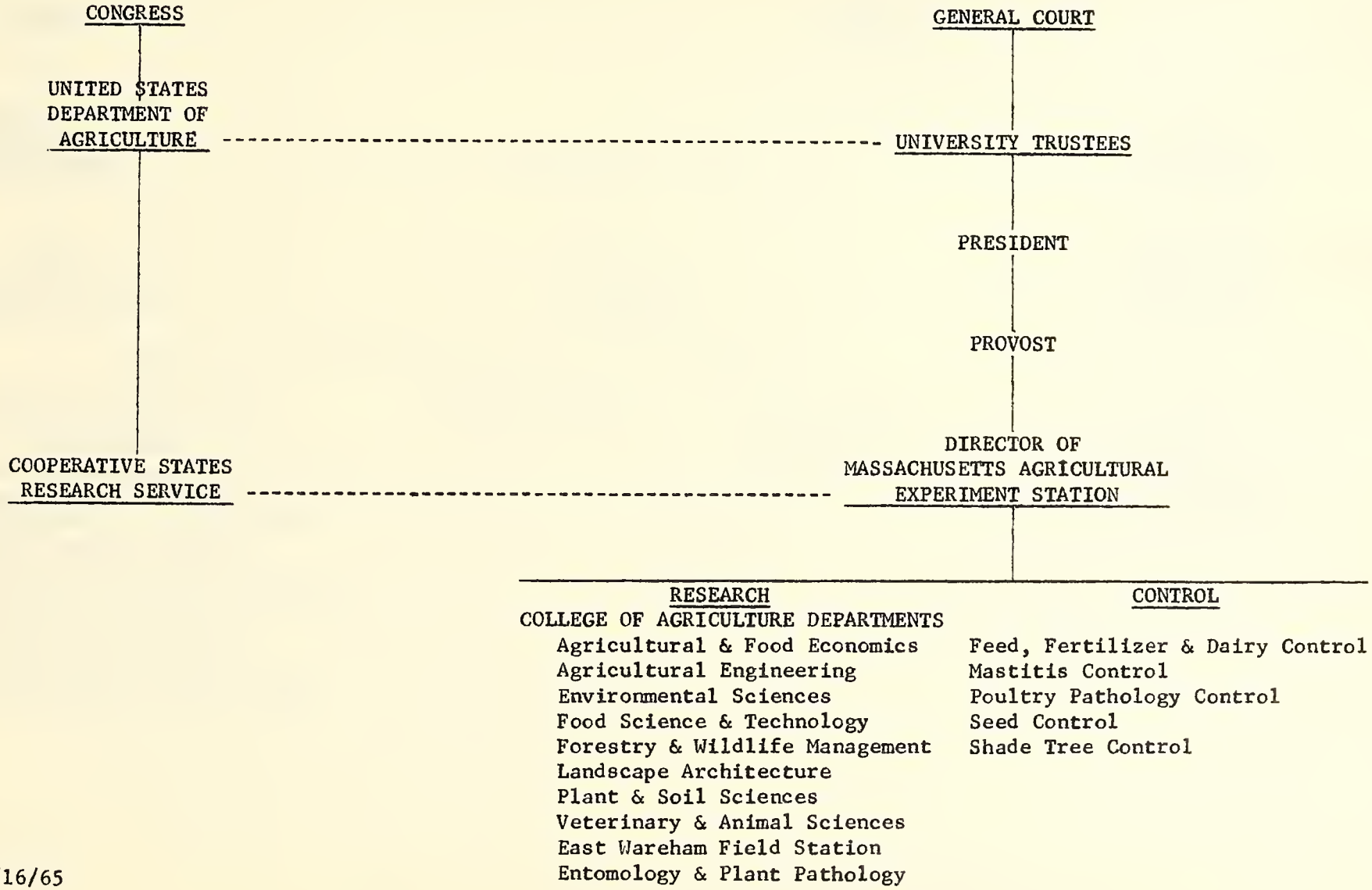
ASSOCIATE DEAN AND DIRECTOR OF THE STOCKBRIDGE SCHOOL

DEPARTMENT HEADS AND DEPARTMENT FACULTIES

Agricultural & Food Economics
Agricultural Engineering
Entomology & Plant Pathology
Environmental Sciences
Food Science & Technology
Forestry & Wildlife Management
Landscape Architecture
Plant & Soil Sciences
Veterinary & Animal Sciences

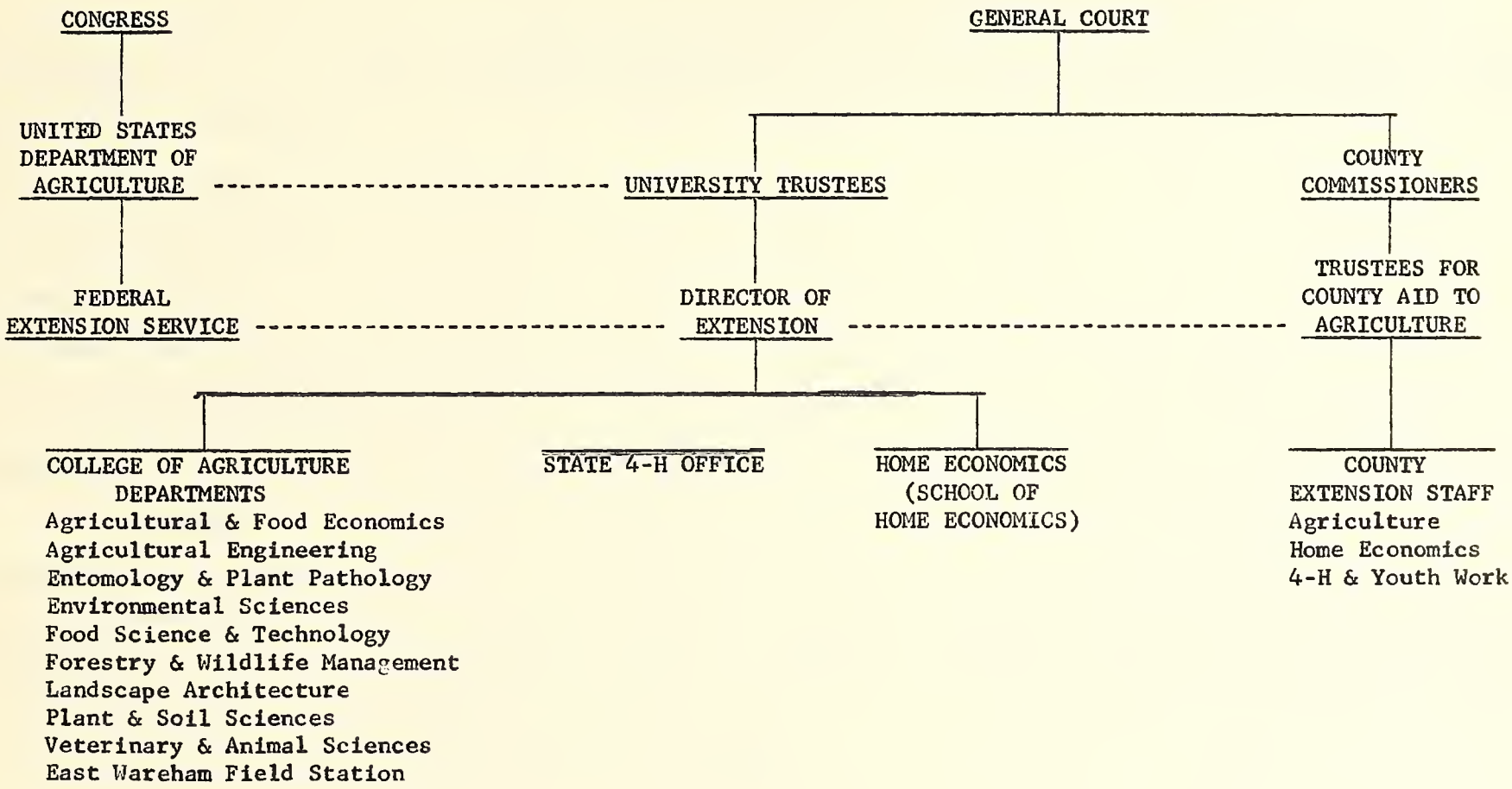
E-6/16/65

MASSACHUSETTS AGRICULTURAL EXPERIMENT STATION
ORGANIZATION CHART



E-6/16/65

COOPERATIVE EXTENSION PROGRAM IN MASSACHUSETTS
OPERATIONAL RELATIONSHIPS



E-6/16/65

COLLEGE OF AGRICULTURE INSTRUCTION PROGRAM

1964-65

Department	No. Credits	No. Student Enrollments	Total Student Credit Hours	FTFE Instruction	Student Majors			Total
					2 yr.	4 yr.	Graduate	
Agricultural & Food Economics	124	929	2,392	5.0	15	13	25	53
Agricultural Engineering	118	700	1,441	5.0	-	4	16	20
Entomology & Plant Pathology	120	1,358	2,625	5.5	-	13	20	33
Environmental Sciences	4	18	44	1.5	-	-	-	-
Food Science & Technology	175½	1,693	3,160½	8.0	87	73	35	195
Forestry & Wildlife Management	163	667	1,530	5.5	20	148	44	212
Landscape Architecture	224 1/3	1,681	3,739	10.0	141	60	15	216
Plant & Soil Sciences	233½	2,678	3,761	10.5	126	28	13	167
Veterinary & Animal Sciences	133	776	1,912½	4.5	78	56	18	152
Total	1,295 1/3	10,500	20,605	55.5	467	395	186	1,048

SCH = student credit hours (students X credits)

FTFE = full-time faculty equivalent (18 credits per year)

E-6/16/65

COOPERATIVE EXTENSION PROGRAM

The Cooperative Extension Program has continued to improve its competency, modify its programs, broaden its clientele, alter its direction, and provide greater educational assistance to the people of Massachusetts. These changes have had significant results in the agricultural production, marketing, natural resources, home economics, and 4-H areas.

Extension Administration has been devoting considerable effort to increase the professional and technical competence of county extension staff. It is particularly gratifying to report a substantial increase in the numbers of county staff who are enrolled in graduate programs and who are authors or co-authors of technical papers published during the year.

Regionalization of Program - The regionalization of the Extension program for commercial agriculture was completed March 1, 1965 making Massachusetts the first state in the nation to effect this modernization. In fact, the pattern for regionalization was first established in Massachusetts. Results include fewer but better trained staff, more realistic workloads, greater efficiency, and more effective educational assistance to agriculture.

Food Distribution Efficiency - A system for improving the organization and use of management and labor in retail food firms resulting from a 1964 Extension study was tested. There was an increase in labor efficiency, added time for customer service, without increase in labor cost relative to sales volume. This work has been an original attempt to reconcile practical operating practices and procedures with a conceptual system; and makes a unique contribution to the science of food management. It provides a way to analyze the conditions necessary for efficient and effective functioning of supermarket management. Results were used in food distribution educational work in all of the New England states, Maryland, Indiana, and Ohio during the year.

Worcester School Lunch Study - The Extension staff of the Restaurant and Hotel Management Program conducted a study of the City of Worcester school feeding program at the request of the Mayor of Worcester, and recommended changes to reduce an $80,000 deficit. The report analyzed the financial set-up, organization, administration, purchasing, menu planning, inventory, production, service, plant, and equipment of the feeding program. Some of the recommendations have already been put into effect and others are planned.

Food Service Seminars - The first of a series of continuing education seminars for operators of food service establishments was held at Waltham during March, April and May. Sixty-four people with food purchasing responsibilities in a wide variety of food service operations attended the 11 sessions. University staff, industry purchasing experts, and government specialists combined to provide instruction.

Four-H At the World's Fair - Four-H club members and leaders participated in a special day program at the World's Fair in New York, which featured a 4-H band, dress revue, folk dancing, and a pageant. This was the only 4-H feature at the Fair.

Four-H Receives Citizenship Award - Massachusetts was the only state to be honored for its 4-H program in citizenship. The George Washington Honor Medal was presented by the Freedom Foundation.

Total of 84,000 Youth Reached - The 4-H program conducted educational programs with a total of 84,000 Massachusetts young people during the past year.

International Programs - Massachusetts 4-H members participated in international exchanges, with one member going to Panama as an International Farm Youth Exchange visitor. Other Massachusetts 4-H membersserved as hosts to IFYE youth from Israel, the Philippines, and Brazil, and to a group of African youth leaders.

Home and Family Life Workshops - The home economics staff increased its program of workshops on home and family life subjects. Sixty-eight were held, with an enrollment of 1,612 lay women and men, home economics teachers in junior and secondary schools, and city and town public welfare workers. Workshops were also held for lay leaders of youth, Red Cross personnel, and leaders working with disadvantaged people.

Work With Low-Income Families - Emphasis on educational work with low-income and other disadvantaged people continued to increase. A fourth to a third of the time of the Extension home economics staff was devoted to training professionals and others who work with low-income families, in direct teaching of low-income people, and in preparing educational materials. The three-year pilot project in Boston's South End, to test Extension teaching methods with low-income people, has resulted in considerable redirection of program in Massachusetts.

Wood Products Utilization - Demonstrations, workshops, and other training sessions were conducted on a regional basis for loggers, millmen, industrial forest managers, lumber manufacturers, and dry-kiln operators. New concepts of systematic evaluation and procedures related to timber quality and market potential, management decisions, and upgrading of forest products were focal points of instruction.

Recreational Potential In Massachusetts - At the request of the Governor and the Massachusetts Department of Natural Resources, a comprehensive study of the potential for recreation in Massachusetts was made by the Extension staff and others in the Department of Forestry and Wildlife Conservation.

The Pesticide Information Center - The College of Agriculture, through its Cooperative Extension Program, has established a Pesticide Information Center in the Department of Entomology and Plant Pathology. This Center will serve as a source of pesticide information for the entire New England area.

Gas Chromatography Pesticide Workshop - As a part of its Cooperative Extension Program, the Department of Environmental Sciences conducted a Gas Chromatography Pesticide Workshop for scientists in the Northeast at the Waltham Field Station the latter part of May. Fifty-six scientists from colleges, universities, industry, and public health agencies attended, representing most of the states in the northeast.

Resistance and Experimental Taxonomy - The Department of Environmental Sciences will conduct, in June, a two-day Extension symposium on "Resistance and Experimental Taxonomy." This program will be attended by scientists from the Northeast area who are concerned with investigations of the mechanisms and processes which underlie the evolution of natural entities or taxa, such as local populations, ecological races, subspecies, species, taxonomic sections, and genera.

Massachusetts Urban Pesticide Education Council - The Department of Environmental Sciences, through its Cooperative Extension Program, has established a Massachusetts Urban Pesticide Education Council. Governor John A. Volpe is serving as honorary chairman of this Council. The Governor has also, as part of this program, issued a proclamation proclaiming June as Massachusetts Safe Gardening Month. This proclamation will initiate an intensive educational program which will be conducted through mass media and with the cooperation of a number of interested agencies and organizations.

6/17/65-50

CIVIL DEFENSE TRAINING PROGRAM
July 1, 1964 - June 30, 1965

Annual Report

APPROPRIATIONS

Fiscal Year 1963-64 ----- $70,000
Fiscal Year 1964-65 ----- $70,655

PERSONNEL

Harold W. Perkins is the coordinator of the University of Massachusetts' Civil Defense Training Program. Instructors are Dr. Wallace G. Black (RMI), and Mr. John J. Dillon (SMI). Mrs. Virginia A. Wesoloski is staff secretary.

STUDENTS OR CLIENTELE SERVED

Fiscal Year 1965 contractual requirements were to conduct eight Shelter Management Instructor Courses, eight Radiological Monitor Instructor Courses and seven Conferences for community leaders and elected officials. SMI students in attendance - 192, certified - 152; RMI students in attendance - 153, certified - 117; conferees - 479.

CIVIL DEFENSE TRAINING PROGRAM
July 1, 1964 - June 30, 1965

Annual Report

MAJOR ACCOMPLISHMENTS

Fiscal Year 1965 contractual requirements were to conduct eight Shelter Management Instructor Courses, eight Radiological Monitor Instructor Courses and seven Conferences for community leaders and elected officials. Accomplishments within these three areas are as noted:

Shelter Management Instructor

The primary objective has been to train competent individuals for certification as instructors. Our contractual goal was to attract students and conduct eight 54-hour courses in areas of the state possessing a large number of Publicly Licensed Fallout Shelters and within which instructors were being sought to train citizens in operating and managing these facilities.

This year's work was concentrated in the three major Metropolitan areas of the state: Boston, Worcester and Springfield. From the eight courses conducted, a total of 152 instructors were certified to conduct training within their respective communities. An analysis of the student body reveals that 32% were from the educational fields, 16% from the medical profession, 30% from the engineering and industrial complexes, 8 % were members of the Armed Services on active duty, 12% were public employees and 2 % were employed in the commercial and financial field. Recruitment of students for classes during their normal working hours was most successful due to the acceptance of the University's Extension Service and with the full cooperation of such organizations as: New England Tel. & Tel. Co., Westinghouse Electric Co., Western Mass. Electric Co., Boston Edison Co., Mass. Dept. of Education, Boston School Dept., Worcester School Dept., Springfield School Dept., Salem State Teachers College, Tufts University, Holy Cross College, Brockton V.A. Hospital, Boston Housing Authority and the First National Bank of Boston.

In a year, characterized by the University's Shelter Management activities being brought to the public in a conservative manner, it has been most rewarding to have witnessed increased interest and favorable reception by businessmen and residents to the presence of accommodations capable of affording protection from radioactive fallout. This trend, as well as support rendered by the public, insured the successful completion of this year's contract with the Office of Civil Defense. With such support, we are confident that the forthcoming year will prove productive.

Locations of SMI courses completed during FY 1965:

Brockton V.A. Hospital, Brockton
Commerce High School, Worcester
Mass. CD Academy, Topsfield
1st Naval District, Boston
Municipal Hospital, Springfield
Mass. Nat'l. Guard Armory, Boston (3)

Radiological Monitor Instructor

The primary objective has been to qualify selected individuals in a 32-hour course as radiological monitor instructors to provide the technical background necessary for advanced training as radiological defense officers for staffing of Local Civil Defense organizations and to provide training for other personnel whose assignments require extensive knowledge of radiological defense.

Contractual requirements were to conduct eight 32-hour courses; however, due to the increased interest and acceptance of this course, eleven 32-hour RMI courses were conducted. Successful completion of this course by students possessing a college level science background will qualify them to be licensed by the Atomic Energy Commission for use of a Cobalt 60 source set to conduct training classes for Radiological Monitors. Because of this restrictive prerequisite, recruiting of students was concentrated among science teachers and individuals with the appropriate background. 153 students registered for the RMI training during FY 1965 with 117 successfully completing the course. An analysis of the

student body reveals that 68 % were from the educational field, 20 % from industry and 12% were public employees.

Locations of RMI courses completed during FY 1965:

Lowell Technical High School, Lowell
V. A. Hospital, Brockton
Newton Technical High School, Newton
Holy Cross College, Worcester
Worcester Commerce High, Worcester
Boston State College, Boston
Town Hall, Stoughton
Area 2 CD Hdqrs., Bridgewater
Stockbridge Hall, U.M., Amherst
Municipal Hospital, Springfield
Mass. CD Academy, Topsfield

Conferences

Seven University-conducted conferences were included in the FY 1965 contract, aimed at orienting state and local officials on Civil Defense Programs and to develop a better understanding of the Civil Defense responsibilities of government officials.

Seven conferences were conducted at various locations throughout the state designed to present the needs of Civil Defense as applied to the individual, to the family and to the community. Six of the conferences were conducted as 3-hour evening presentations and one as a 1-day conference at Westover AFB Officers Club. A total of 479 attended these seven conferences.

Location of Conferences conducted during FY 1965:

Univ. of Mass., Amherst
Westover AFB, Chicopee
Crane Inn, Dalton
Howard Johnson's, Leominster
King's Grant, Danvers
Holiday Inn, Lawrence
Hyannis Inn Motel, Hyannis

Recruitment

The program of presenting and obtaining interest in the needs of Civil Defense offers a great challenge, particularly due to the apathy that has developed in the general public. This apathy is in part due to a lack of knowledge which, if provided the general public, will lead to acceptance and actions

necessary to insure an adequate Civil Defense program. This basic philosophy has been followed in regard to recruitment of students and conferees in the University program and the staff has been active in attending evening meetings whereby elected officials and community legitimizers were present. Short presentations were presented to these groups outlining the scope and purpose of the University training program.

In addition, personal calls have been made to key executives of industry and businesses throughout the state outlining the scope and purpose of this program as well as delineating the benefits these organizations might obtain within their own emergency planning programs by actively participating in this training program.

By analysis of the University of Massachusetts' program compared to the other participating Universities, it appears this course of action has been successful and rewarding in that the University of Massachusetts' program ranks in the upper 10% in training goals and accomplishments.

FUTURE PLANS

During fiscal year 1966, a series of seven conferences will be scheduled throughout the state for civic leaders and persons in local, county and state government. In addition, twenty courses will be offered as noted:

5 Shelter management Instructor
5 Civil Defense Management
5 Radiological Monitor Instructor
5 Radiological Defense Officer

The Civil Defense Management course is being offered to further qualify the appointed Civil Defense Directors of the 351 towns and communities within the state, with the Radiological Defense Officer course being offered to provide qualified RADEF staff personnel to effectively supervise the State Radiological Defense Monitoring Network.

ANNUAL REPORT--MALAWI CONTRACT, AID/afr-62

The University of Massachusetts has been at work in Malawi since April of 1963. Starting from scratch, University personnel in Malawi, at the request of the Ministry of Natural Resources, studied the agricultural situation and developed a program, which in two years has resulted in the organization and staffing of an Extension Service; in the improvement and expansion of training programs for Extension workers; in the organization and staffing of a credit program, and in the development of an agricultural college.

Malawi is a poor agricultural country, due more to population pressure, customs, and methods of cultivation than to a shortage of fertile, arable land. An estimated 8.6 million acres of land support a population of 3.8 million, amounting to a little over 2 acres per capita.

Factors of tradition inhibit efficient and intensive agriculture, especially the tribal system of land tenure, and the native methods of cultivation.

Tenure of land descends matrilineally, from mother to all daughters, leading to fragmentation of land holdings into increasingly smaller inefficient plots. There is little individual ownership of land, and no other means for consolidating plots into farms sufficiently large for efficient cultivation.

For the most part, methods of cultivation on subsistence farms are extremely primitive. There are a few draft animals (oxen), and the basic tool for cultivation is the short-handled hoe.

On the positive side, the arable land is extremely fertile and capable of producing from 5 to 20 times as much as it does now. The people are universally industrious, the younger, better educated farms are willing to follow recommendation for improved production practices, and most important of all the people have a deep sense of pride in their country, their independence, their Prime Minister, and cheerfully undertake any program suggested to them.

The willingness of the people to cooperate has been helped immeasurably by changing the organization of the Department of Agriculture from a colonial department, which ran the country as if it were a plantation to a viable, American-style Extension organization whose programs are planned and executed by intelligent and well trained men at the village level. These programs are a blend of the nation's need for export crops, the local needs of the people themselves, and the advice of the specialists in the Department of Agriculture. The people follow them quite willingly, since they feel that through their representation on committees, and through their local political leaders, they have had a part in planning the program. Furthermore, they feel they are making a definite contribution towards improving not only their own lot, but that of their region and their nation.

The importance of the effective development of agricultural resources in Malawi can hardly be overstated. In the absence of commercially exploitable mineral resources, the country is almost wholly dependent on its agricultural potential for achievement of its development goals, including:

1. Expanded domestic production and consumption.

2. Increasing proportion of the population in cash crop production.

3. Reduction of chronic trade and payments deficit.

4. Industrialization-processing of agricultural products.

This priority is clearly recognized in Malawi's five year development program 1965-1969 which allocates approximately 40% of all development funds to agricultural development.

The keys to such improvement are to be found in the University's program for agricultural education and training through an Extension organization, training in and wider use of cooperatives, and in expanded and more effective systems of credit.

The specific accomplishments of the University of Massachusetts in Malawi over the past two years have been:

1. Organization of a complete Extension Service with its own director, and subject matter specialists.

2. Introduction of program planning procedures at the local level, rather than the national, with local representations of farmers, businessmen, and politicians.. This has ensured acceptance of the programs by the people who feel that they are involved in carrying out their own wishes.

3. Introduction of a system of personnel management with definite programs and procedures for recruiting, interviewing, selecting, inducting, training, and advancement of all personnel. The biggest breakthrough on personnel management came with the official adoption of job descriptions coupled with a yearly job evaluation for everyone in Extension. The establishment of a national Operations and Training committee within the Department of Agriculture early in 1963 was probably the most significant step taken in connection with all this.

4. A realization by all concerned that the most immediate way of improving any organization is to pay strict attention to logistics. In Malawi where trained Extension instructors are still very thin on the ground, a man's efficiency can be improved by 50-60% by providing him with proper transportation, communications, office space, and adequate equipment and materials.

5. An awareness by all concerned of the importance of good public relations, not only among the staff, but with the public, other departments and organizations, and most important of all, with politicians.

6. Although finance was an internal matter, and not within the University's province, the Department was persuaded to relieve their field personnel the time-consuming responsibilities for pay and allowances.

7. Pre-service training for Extension has been, and until the agricultural college at Bunda is completed, carried out by a two-year certificate level agricultural school. This institution has now been improved to the point where graduates are capable of

carrying out the duties specified in their job description. An overall improvement of the curricula, preparation of course outlines, preparation of lecture notes, furnishing of texts and references, and the furnishing of a library all contributed to this improvement.

8. Construction is underway on an agricultural college which will be an integral part of the new University of Malawi. The University's part in this endeavor to date has been on a consultation basis for the farm and campus physical plant, and to study the agricultural colleges and universities in East and Central Africa, and to evolve a curriculum for the college. Eight Africans will receive their Bachelor's Degree in the College of Agriculture in 1968-69-70, and will return as lecturers at the Agricultural College. To fill the gap in lecturers, which will exist until they return, the University will furnish professors in crop husbandry, animal husbandry, agricultural economics, agricultural chemistry, agricultural biology, and home economics.

9. In establishing a credit program, the University personnel were faced with the lack of a clearly defined credit policy, a source of loaningfunds; a past history of many uncollected loans; a large base of subsistence, or near subsistent farmers, and lack of a supervised credit program.

   In just nine months of operation, the former African and Farmers Loan and Subsidiaries Board has been discontinued and a "Central Loans Board" formed. Policies on short term credit have been established, and a system which will enable the small deserving farmer to receive credit has been instituted. Africans trained for from 9 months to one year in America and Africans trained locally by the University will staff this organization.

This contract is scheduled to be phased out in 1970, and in the immediate future the University will concentrate on rounding out the Extension organization by the addition of programs for youth, and programs for women. Within the organization, the biggest need at this time is the training of Africans in administration and supervision. As the expatriate agricultural offices leave the country, more and more Africans are being raised from the village level to supervisory positions and the need for training them is critical. This will be accomplished mainly within the country, but a selected few will be sent to America.

There was a distinct and depressing lack of communications (both up and down) between all levels of the Department of Agriculture and this continues as the department is Africanized. Our main contribution here has been in acting as what has been called the "soft-mouthed American" acting as a catalyst to start the flow of communication.

More emphasis will be given to the agricultural college, and the University of Malawi after its first intake in July of 1966.

The credit program will expand rapidly and need constant attention to organization, reorganization, and selection and training of staff.

The holdup on the establishment of cooperatives is due to political infighting between two ministries, but this will be resolved in 1965, and the University will be involved in organizing and staffing this program.

It has been a fascinating experience to work in a country while it is still a colony, watch it gain its independence, and slowly emerge and gather momentum. In this transitional period, the most pessimistic statement and predictions are made about "unpreparedness for independence","African mentality","peasant agriculture", and "the futility of training programs", but as time goes on, the people prove these statements to be without fact, and are quite capable of tackling and solving their problems by themselves.

Charles W. Turner
Foreign Contract Officer

CWT:mm

ANNUAL REPORT

AGRICULTURAL ENGINEERING DEPARTMENT
UNIVERSITY OF MASSACHUSETTS

July 1, 1964-July 30, 1965

5. (a) FACULTY PUBLICATIONS:

1. Brouillette, L. P. and G. A. Fitzgerald. "Procurement of Foods by Grocers - Retailers Need for the ABC System." College of Agriculture Bulletin 428A, 1965.

2. Clayton, J. T. and L. L. Boyd. "Estimating Sensible Heat Exchange of Chickens by Simulation." Transactions of ASAE, Vol. 7, No. 4, pp. 375-79, 1964.

3. Collins, W. H. Massachusetts Building Plan Service contributions: MC 4611; MC 4612; MC 4613, and MC 4622.

4. Fitzgerald, G. A. "Preparing the Grocery Industry for Automation." Supermarket News, Oct. 12, 1964.

5. Fitzgerald, G. A. "Procurement of Foods by Grocers - Retailers Need for the ABC System." College of Agriculture Bulletin 428B, 1965

6. Fitzgerald, G. A. "The Basic Space Module for the Retail Shelf." Food Distribution and Wholesale News, March, 1965.

7. Fitzgerald, G. A. Extension Service Leaflets:
   EM-3 "Layout Principles for Fresh Meat Packaging."
   EM-5 "Central Meat Packaging."
   EM-6 "Continuous Washing Equipment."
   EM-7 "Mechanized Wrapping Equipment."
   EM-8 "Meat Discoloration Causes and Corrections."
   EM-9 "Display Case Lighting."
   EM-10 "Packaging Chicken to Exact Weight."
   EM-200 "Designing Department for Tray Display."
   EM-202 "Tray Display in Non-Refrigerated Racks."
   EM-203 "Packaging for Tray Display."
   EM-204 "Effects of Packaging on Lettuce Quality."
   EM-205 "Where to Package."

8. Fletcher, S. W., et al. "Mechanical Properties of Some Fruits and Vegetables Under Fast Rates of Loading." Transactions of ASAE, Vol. 8, No. 2, 1965.

9. Johnson, E. A. "Meteorological Observations." Monthly bulletins of Agr'l. Exp. Sta. Numbers 907 through 918, inclusive, 1964-65.

10. Johnson, E. A. Extension Service Leaflets:
    PM-12 "Engine Cooling System Maintenance."
    PM-13 "Calibration of Low Pressure Sprayers."

11. Johnson, C. A. Extension Service Leaflets:
SW-7 "Types of Wells for Rural Use."
SW-8 "Types of Pumps for Rural Use."
SW-9 "Water Quality and Treatment for Rural Use."
SW-10 "Removal of Minerals from Water for Rural Use."
SW-11 "Dependable Water Supplies."
SW-13 "Dairy Farm Water Supplies."

12. Kleis, R. W. "Use of Plastic Pipe on Farms." Extension Service Leaflet SW-12.

13. Kleis, R. W. and R. E. Bright. "Mass Shear Strength of Haylage." Transactions of ASAE, Vol. 7, No. 2, 1964.

14. Kleis, R. W., A. W. Selders, et al. "A Mechanical Harvesting and Handling System for Processing Apples." Cooperative Extension, Technical Information Pub. No. 2, 1965.

15. Kleis, R. W. "Complete Forage System Mechanization with Intermediate Moisture Content Forage." International Congress of Agricultural Engineers, Lausanne, Switzerland, Sept. 1964, CIGR Proceedings, Vol. III, PP. 638-46, 1964.

16. Kleis, R. W., et al. Dictionary of Agricultural Engineering. Interstate, 1965 (contributor).

17. Light, R. G., et al. "A Leaf Harvester for a Systems Approach to Field Tobacco Production." Univ. of Conn. Bul. 386, 26 pages, 1964.

18. Light, R. G. "Hay Crop Handling Methods and Equipment." New England Homestead, May 1965.

19. Light, R. G. Massachusetts Building Plan Service contributions: MC 4601; MC 4602; MC 4603; MC 4604; MC 4605; MC 4606; MC 4607; MC 4617; MC 4619; MC 4620; MC 4623, and MC 4624.

20. Light, R. G., et al. Proceedings of Sixth Annual Farm Structures Seminar," Univ. of Mass., April 1965.

21. Norton, J. S. "An Implement for Burial of Plastic Sprinkler Systems." Extension Service Leaflet, PM-11.

22. Schulze, J.F.W. and E. S. Pira. "Your Electrical Guardian." Extension Service Publication 426, 1964.

23. Schulze, J.F.W. and W. J. Lord. "Ladder Safety in the Orchard." Ext. Service Leaflet, 1964.

24. Schulze, J.F.W., et al. "Proceedings of High School Safety Conference." Univ. of Mass., 1964.

25. Whitney, L. F. and C. W. Hall. "Harvesting and Drying Alfalfa Leaves." Transactions of ASAE, Vol. 7, No. 3, pp. 339-43, 1964.

26. Whitney, L. F. and S. A. Weeks. "Principles of Vacuum Drying Applied to Forage." Transactions of ASAE, Vol. 7, No. 4, pp. 452-3, 1964.

27. Whitney, L. F., et al. "Proceedings of Fifth Annual Farm Machinery Seminar." Univ. of Mass., Nov., 1964.

28. Whitney, L. F. and E. S. Pira. "Tractor Safety Frame and Seat Belt." Extension Service Leaflet PM-10.

29. Zahradnik, J. W., et al. "Proceedings of New England - New York Controlled Atmosphere Storage Seminar." Univ. of Mass, Pub. 422, 1964.

30. Zahradnik, J. W. "Effects of New Developments in Construction and Process Control on CA Storage Design and Management." Annual Report of the Maine Pomological Society, pp. 13-16, 1964.

5. (b) TECHNICAL PAPERS PRESENTED:

1. Clayton, J. T., et al. "Characteristics of Concrete Face - Expanded Polystyrene Core Sandwich Panels." Presented at Annual Meeting, North Atlantic Region, ASAE, New Brunswick, New Jersey, Aug. 1964.

2. Fitzgerald, G. A. "Packaging of Poultry Parts." Presented at Annual Meeting ASAE, Athens, Georgia, June 1965.

3. Frechette, R. J. and J. W. Zahradnik. "Surface Area - Weight Relationships for McIntosh Apples." Presented at Annual Meeting ASAE, Athens, Georgia, June 1965.

4. Johnson, C. A. "Liquid Handling Processes for Poultry Manure Utilization." Presented at Annual Meeting, North Atlantic Region, ASAE, New Brunswick, New Jersey, Aug. 1964.

5. Kleis, R. W. "Graduate Study - Opportunities and Obligations." Presented at Annual Student Rally, American Society of Agricultural Engineers, Guelph, Ontario, Nov. 1964.

6. Malhotra, R. K. and J. T. Clayton. "Surface Temperature Distribution of a Chicken Subjected to Several Environmental Temperatures." Presented at Annual Meeting ASAE, Athens, Georgia, June 1965.

7. Pira, E. S., L. F. Whitney, and C. M. Vaziri. "Water Distribution from Subsurface Irrigation Systems." Presented at Annual Meeting ASAE, Athens, Georgia, June 1965.

5. (c) OTHER PROFESSIONAL ACTIVITIES OF STAFF:

J. T. Clayton

Chairman, Experiment Station Facilities and Equipment Committee
Secretary, College of Agriculture Personnel Committee
Program Committee (national) ASAE
Farm Building Construction Standards Committee (national) ASAE
Animal Shelter Ventilation Committee (national) ASAE

W. H. Collins

Rural Preparedness Program Committee - College
Resource Development Program Committee - College

S. W. Fletcher

Took courses beginning toward doctorate

C. A. Johnson

Mastitis Control Committee - College
Chairman, Milk Handling Equipment Committee (national) ASAE

E. A. Johnson

Instrumentation Consulting - College
Weather Station Supervision - Experiment Station
Residential College Fellow - Emily Dickinson

R. W. Kleis

Faculty Senate - University
Honors Council - University
Campus Master Planning Committee
Chairman - Nominating Committee of Senate
Adult Education Study Committee - University
South Deerfield Facilities Planning - College
Natural Resources Planning Committee - College
Water Resources Research Center Committee - University
Marketing Firms Program Committee - College
New England Council Representative - Regional

Electric Power & Processing Division Steering Committee (national) ASAE
Education and Research Division Steering Committee (national) ASAE
Chairman, Division Structure Review Committee (national) ASAE
Forward Planning Committee (national) ASAE
Food Engineering Committee (national) ASAE
Curriculum and Course Content Committee (national) ASAE
National Meetings Committee - ASAE

Regional Executive Committee Representative - Am. Soc. for Eng. Educ.
Planning Committee (national) Engineers Joint Council
Accreditation Officer - Engineers Council for Professional Development
U.S. Delegate to (and presented paper at) International Congress of Agricultural Engineers, Lausanne, Switzerland
Guest Speaker at 1964 ASAE Annual Student Rally, Guelph, Ontario

R. G. Light

Chairman, Connecticut Valley Chapter - ASAE
Chairman, Northeast Region Plan Service Committee
Northeast Region Uniform Milk Standards Committee
Northeast Region Animal Waste Standards Committee

E. S. Pira

Stockbridge School Advisory Committee

J.F.W. Schulze

Emergency Preparedness Committee (national) ASAE
Chairman, Rural Preparedness Committee - College
Chairman, Farm and Home Safety Committee - College

L. F. Whitney

Educational Policies Committee - College
Chairman, Power and Machinery Division, North Atlantic Region, ASAE
Consulting in Feed Processing and Handling

J. W. Zahradnik

Completed doctorate at MIT
Technical Data Committee (national) ASAE
Consulting in Fruit Storage Design

6. MAJOR ACCOMPLISHMENTS:

The Agricultural Engineering department continues in its development of stature in the profession and productivity in its component of University programming for the Commonwealth. It has evolved from organizational chaos and professional inertness in 1957, to unique regional status and national recognition in 1965. This within the limits of staff positions, resources and facilities existing in 1957, through rigorous personnel administration, administrative support, technical stimulation, professional agressiveness, and dynamic programming to meet the unique and changing needs of the region without confinement by tradition.

Undergraduate course offerings continued this year to be modified and improved following the major and total revision last year. The de-emphasis on skills and practices led to discontinuing a traditional course in "Shop Practice", and conversion of shop facilities for more technical laboratory uses. The number of courses offered continued to be reduced (22 in 1962, 18 in 1963, and 14 in 1964), with increases in total registration and teaching loads (550, 700 and 750 for the last three years.) A new upper class course in Resource Engineering was organized and has been submitted for approval. This is a start toward appropriate interdisciplinary programming for the important and rapidly emerging field of resource development and regional planning.

Graduate program emphasis continued as did the consistent growth in program strength, student numbers and professional recognition. The demands for advanced study opportunities are increasing as indicated by increased numbers of inquiries and applications. The need for advanced degree graduates much exceeds the supply. Our M.S. graduates have performed to the credit of the University in key positions in the industries, in academic positions and in doctorate programs. Graduate students come to us from Maine, Vermont, Massachusetts, New Hampshire, Connecticut, New Jersey, Ohio, and West Virginia, as well as Taiwan, India, Japan, Israel, Iran and Canada. There are only two other graduate students in Agricultural Engineering in all of New England this year. Thus, our program is unique and is in fact the graduate program of the region. It is also unique in that it is one of four in the country emphasizing food engineering as an important phase of A.E.

A doctoral program and request for authorization was formulated in 1965 as a result of several years of program design and development. This proposal has been approved at the various levels on campus and is presently pending for action by the Board of Trustees. This program is much needed as the only one in the region and our unique capacity to execute it soundly is acknowledged by the profession in New England.

Research programming through ten projects provides for significant studies and creative accomplishments both for staff and graduate students as follows:

1. Farmstead Engineering - four major projects under Dr. Clayton, Professor C. Johnson and Dr. Kleis - six Graduate Assistants.

2. Field Engineering - one project under Dr. Whitney - two Graduate Assistants.

3. Food Engineering - three major projects under Professor Fitzgerald, Dr. Zahradnik and Professor E. Johnson - four Graduate Assistants.

4. Resource Engineering - three projects under Dr. Whitney, Professor Pira and Dr. Kleis - five Graduate Assistants.

The project emphasis and proportions of staff and Graduate Assistant assignments indicate continuing emphasis of Food and Farmstead Engineering and increasing emphasis in Resource Engineering. At the same time it is significant that Field Engineering is being deliberately de-emphasized and that Soil and Water Engineering is ignored. These latter two phases of Agricultural Engineering constitute about 75% of the profession nationally, but they are not the most important in the Northeast. Thus, we are departing from tradition (and sister programs in New England) to apply our efforts to problems most significant in our region.

Because of limited staffing and increasing instruction loads, little professional staff time is applied to research except most effectively through the direction of graduate students.

Extension education, projection of staff competences and program accomplishments to the needs in the field is at least a secondary responsibility of every staff member under our operating concept of an integrated and coordinated total program. Although this concept has long been our guide, only this year has a highly effective balance of staff abilities, assignments and programming been realized. Four men have primary responsibility for organizing, coordinating and executing extension engineering programs:

1. Farmstead Engineering as related to the fast changing fields of dairy production and special crops production - R. G. Light.

2. Natural resource engineering with particular and growing emphasis upon recreation and leisure time facilities - W. H. Collins.

3. Food Engineering with particularly effective educational programs for high level management in the food distribution industry - G. A. Fitzgerald.

4. Emergency preparedness and safety engineering - a new program sponsored under contracts with the Federal government - J. F. W. Schulze.

As in research, the major areas mentioned above indicate the areas of program emphasis designed by the department. Of course we are called upon to provide technical educational service to a wide variety of problems not covered above. For valid needs to which we are prepared to offer competence, the most appropriate staff specialist is available, regardless of primary duty assignment. Such a policy requires constant administrative vigil and frequently courage to

maintain order and balance, but given these, it maximizes program impact. At the same time, staff members with primary extension responsibility are incorporated into instruction and research duty as their particular interest and competence correspond to such needs.

Staff participation in the integrated total program is illustrated by the following table:

Staff Member	Student Advising	Grad. Instr.	Undergrad. Instr.	Extension	Research	Admin.
Dr. Clayton	P	P		S	P	
Prof. Collins			S	P	S	
Prof. Fitzgerald		S	S	P	S	
Prof. Fletcher		S	P	S	S	
Prof. C. Johnson			P	S	S	
Prof. E. Johnson			P	S	S	
Dr. Kleis	P	P	S	S	P	P
Prof. Light		S	S	P	S	
Prof. Pira			P	S	S	
Prof. Schulze			S	P	S	
Dr. Whitney	P	P		S	P	
Prof. Zahradnik	P	P		S	P	

P = primary duty

S = secondary responsibility

7. SPECIAL PROGRAMS AND ACTIVITIES:

a. Professional Seminars - The department organized and conducted professional seminars for industry and field engineers on current interest topics and new developments in rural building and agricultural machinery.

b. The building plan service was much expanded, updated and streamlined by Light and Collins. The effectiveness and use of this service to the region has increased to about 300 per week.

c. Engineering designs and TV and press publicity of them for leisure time facilities have received extensive use and acceptance. Some 5,000 plans have been purchased by interested individuals.

d. New and increasing program emphasis on natural resource engineering has been implemented by a new course offering, four special problem studies and extension programming.

e. Grant support of research received more attention and three major grant projects were formulated by Dr. Clayton and Dr. Whitney.

f. Two National Science Foundation Engineering Traineeships were awarded the department for support of its growing graduate program. Both were renewed for the next year, and two additional ones for a total of four have been awarded. A Fellowship was also awarded one of our outstanding graduate students by the Hood Foundation.

g. Regional cooperation in extension educational programming was enhanced under the leadership and professional effectiveness of R. G. Light.

h. The department and region were represented at the International Congress of Agricultural Engineering in Lausanne, Switzerland by R. W. Kleis, who attended as a U. S. delegate and presented a research paper.

i. The doctoral program, as a natural projection of the regionally unique and strong graduate program emphasis of the department, was formulated and submitted for activation in September 1965.

j. The department organized and began extensive planning to execute its responsibilities and opportunities as host to the 1966 National Meeting of the American Society of Agricultural Engineers.

k. Completion of his doctorate by J. W. Zahradnik brings to four the staff doctorates and provides an outstanding senior Ph.D. staff member for each of the major subject matter phases of the program. This is unique in the profession as indicated by the complete void of Ph.D. holders in A.E. in New England, except at the University of Massachusetts.

l. Every staff member participated in at least one national or regional professional meeting during the year. Clayton, Johnson, Kleis, Whitney and Zahradnik hold national professional assignments, and along with others are active in the region and in the local chapter of our professional society.

m. Six out of twelve are now Registered Professional Engineers. Seven actively project their professional competence to public benefit through civic projects and appointments in Amherst, Pelham, Sunderland, Hadley, Leverett and Whately. These activities reflect both credit and benefit to the department, particularly in its resource engineering program.

8. FUTURE PLANS AND NEEDS:

a. Program Plans

1. Continue to emphasize and develop program in food engineering.

2. Provide major emphasis on natural resources development and planning program recently initiated.

3. Continue strong but non-expanding program in farmstead engineering phase.

4. Continue to de-emphasize field mechanization and traditional soil and water phases as less critical and relevant in this region recognizing that this may render us politically vulnerable and professionally "odd".

5. Execute newly established Ph.D. program with quality, and discretion to serve the critical needs of the Northeast for such advanced degree work.

6. Continue to emphasize and develop graduate study as this department's unique regional contribution.

7. Continue efforts to recruit, develop and maintain a dynamic, productive and national stature staff of modest size, but maximum program impact.

8. Intensify efforts toward greater regional cooperation for increased programming efficiency and coverage.

b. Staffing - Professional

The program development and growth to date has resulted from extensive and sometimes harsh re-allocation of resources and staff positions existing eight years ago. The strength, climate and productivity of the department now bears little resemblance to that of 1957. But there are limits to how much a good technical staff member can be bent and stretched and remain

effective. We have reached that limit and find serious voids and increasing overloads in present programming; this plus needs associated with new programs. Staff needs conservatively spelled out in the 1963 "Five Year Projection" are already two staff positions behind schedule although the program development plans are on schedule. There are other staff needs which have also been documented previously but the two most primary and critical are:

1. Associate Professor of Resource Engineering - This man would be a "core person" of graduate staff stature around which to develop the emerging resource engineering program. We have fragmented elements of staff interest and professional competence in this area, but no one individual really qualified to wrap it into a program and lead it. This plus the fact that other important overload demands on present staff would preclude such a shift.

2. Instructor of Food Engineering to implement sound programs evolved under the able leadership of Professor Fitzgerald and Zahradnik, and to assist with the large and growing service teaching loads in this phase.

c. Staff - Subprofessional

Secretarial and drafting service staffing is quite adequate to present and near future needs. Serious problems here have been resolved with administrative support and with a currently outstandingly conscientious and productive group of employees.

Laboratory technician assistance is highly inadequate with only two men (however able and productive.) The problem here results in extensive use of professional staff time for nonprofessional work. We need two more high level (grade 8 or better) technicians as a minimum to support professional staff in present programs.

d. Graduate Assistantships

Assistantship support for the continuously increasing graduate program is quite inadequate. This situation will be more severe with the initiation of Ph.D. programming, although doors to other outside support will also be opened by it.

e. Facilities

The pending design and construction of an Agricultural Engineering office and classroom unit between our two laboratory buildings will provide adequate departmental programming facilities for several years. We look forward to this logical and economical solution to severe current problems. This project will satisfy two primary, and three critical needs.

(1) Elimination of the physical "three building" split of this department's program which results in poor coordination, supervising inefficiency, inventory duplication, and general limitation of total productivity.

(2) Provision for relocation and housing of Station Services facilities being preempted by new construction on the northeast corner of the campus.

(3) Release office space in Stockbridge Hall for other needs and more logical uses.

We urge the expedition of this project to early completion.

f. Operating Support

Funds for special equipment, instrumentation, supplies and other increasing research costs are very inadequate. Without intending to relieve responsibility for public fund support, it is anticipated that in general, increased research support must be obtained from outside agencies. This department has no significant history of grant procurement, but increased efforts in this direction are planned.

RWK/am
5/27/65

DEPARTMENT OF AGRICULTURAL AND FOOD ECONOMICS
July 1, 1964 - June 30, 1965

Annual Report

MAJOR ACCOMPLISHMENTS

The year 1964-65 was one of steady progress in the many activities of the Department. The heavy teaching load was continued. Progress was made in all of the approved research projects and the extension programs innovated new methods and approaches that facilitated the interest in continued education from many sectors of the state's economy that provides for its production and distribution of its food requirements.

Dr. Blackmore resigned as Head of the Department during the year and Professor Bell took over the administrative duties as Acting Head. Professor Foster and Professor Russell were on sabbatical with Fulbright fellowships to India and Turkey, respectively. Professor Bragg returned from sabbatical (September 1963) at the University of Indiana where he was pursuing the studies toward his doctorate degree. Staff members generally increased their contributions to professional journals and their participation on the programs of professional meetings.

Teaching

On this return from sabbatical, Professor Bragg took over the teaching and development of Business Management courses in the Stockbridge School. Professor Storey, in addition to teaching the courses in Advanced Marketing and Agricultural Policy, assumed the duties of Department Chairman of the Graduate Program. This was a very active program requiring the coordination of the graduate programs of study for 16 number of students in residence as well as screening and attending to the great interest in prospective students for graduate study in the Department next year.

The course offerings in Practical Economics and Business Management Principles offered to Stockbridg students were upgraded by Professor Callahan. Now seven of the eleven programs of study in the Stockbridge School carry this course in the curricula which means that this course will have between 130 and 150 students next year.

Other courses given in the Department that contribute much to the Stockbridge courses of study are: Accounting, conducted by Professor Spindler; Business Law, given by Professor Rhoades.

The Food Distribution program of study in the Stockbridge School has shown an exceptional growth. The entering class for next year has reached the limit of 20, and,after careful screening, some worthy and able applicants have been turned away. This program is geared to the growing demand for well-trained young people to fill managerial positions in business firms related to the food industry. From this group there is also developing a high proportion who extend their studies to the four-year program in this field of interest.

A course was offered for county extension service personnel (Research Methods) which was taught at Waltham to twelve students by Professor Jarvesoo. This was taken for graduate credit by extension personnel in the counties and gave opportunities of study in economics and mathematics that provided a deeper understanding of research, its methods, and evaluation of results. A course in public affairs by Professor Engel was again offered to extension personnel for the second year and classes held during the first semester in Waltham. This course also provided graduate credit and enrollment was up to the limits of possible scheduling by both students and instructor.

The revised curriculum and course of study for majors and students in Agricultural and Food Economics which was approved last year is bearing fruit. It is providing the student with a strong basis of knowledge in the social sciences

related to the programs of the College of Agriculture. As this understanding grows, it will facilitate student interest in the College of Agriculture from other schools and departments of the University.

Research

The research program of the Department of Agricultural and Food Economics is carried out largely by eight members of the staff. This is supplemented by assignment of Research Assistants to project leaders where feasible. The Research Assistants have been of material aid to the program of the Department and has given more mileage to the efforts of the professional staff in developing and carrying out their research projects.

The major areas of the program are:

1. Farm Management and Business Adjustments
2. General Marketing and Commodity Marketing
3. Resource Economics

The increasing complexity in the size of the farm business as well as the marketing firms requires further study in the "Man in Management." This entails his ability to comprehend, to learn, to coordinate, and develop decision-making processes in carrying through the management functions of the firm whether it be at the farm production level or at the food retailing level.

Techniques are now available and being used to improve and develop supply prediction models. This is particularly useful in studies of research in the area of production economics of agricultural enterprises and is important research to support the understanding of the increasing complexity of our economy.

Research efforts are being stepped up in the area of resource economics. These encompass such areas as land use in the environment of urban growth in our agricultural communities and take particular notices of the economics of our water

resources both for the needs and requirements of agriculture and food development as well as industrial processing of foodstuffs and other items of industry in the same community.

Much fundamental research has been contributed to the revision of transportation rate structure to the transfer of feedstuffs from the Middle West to New England manufacturing plants of livestock ration which support the livestock economy of our dairy and poultry farms of the area. Professor Brown who carries on this research made an appraisal of the impact on theagriculture of mass of the proposed changes for the Governor's office. This was later made available for the consideration of the entire Conference of New England Governors when changes were made on rail rates for feed grains for New England farms.

A downward change in freight rates on corn shipments was made effective late in 1964 and it is estimated by the industry that this downward great adjustment made savings for Massachusetts farmers of approximately $4,000 weekly. Additional changes are under consideration for other items of feedstuffs and will be supported by research results from this Department. Such rate adjustments enable agriculture in this area to maintain a competitive economic advantage with other regions and areas producing agricultural products that are innate to the agriculture of this state and area.

Extension

Three surveys were conducted by Professor Jarvesoo; namely, nursery industry survey, floricultural industry survey, and the lawn and fine turf survey in Massachusetts. These surveys were requested by the Extension Service and the respective industries. The results of these surveys were made available to the extension personnel working with the firms in these industries as well as leaders of the industry themselves. It will provide much knowledge and factual

information concerning the economic structure of these industries in the state and provide a basis on which continuing educational programs can be furthered and developed.

In Marketing Economics, Professor Engel developed educational programs on the economic impact of changes in milk marketing regulations which occurred during 1964. These evaluations and appraisals were made available to the industry and used as a source of information by their leaders and in publications and co-operative newsletters to members of cooperative marketing associations. This information was also used extensively by the regional county agents working in the dairy area.

As a member of the New England Milk Shed Price Committee, Professor Bell participated in the evaluation and appraisal of the marketing regulations and pricing programs of the Federal Milk Marketing Orders in New England. In this program the work was closely associated with the Milk Marketing Cooperatives, particularly in developing action programs of their Board of Directors in management as well as the educational activities of their membership.

The economic information on current trends affecting the agriculture of state was developed and made available to extension personnel and agricultural leaders of the state by Professor Bell. In this connection, he participated in the bi-annual conference of the Federal Reserve Board on their analysis of business and industry trends in New England and on the quarterly meeting of the Economic Advisory Committee of the American Feed Manufacturers Association. Also, monthly contributions were made to the publications of Dairy Digest and Credit Facts concerning the economic changes and trends that affected the dairy and poultry industries of Massachusetts.

Two significant extension studies were conducted by Professor Leed in co-operation with the food distribution firms in Massachusetts. The first related to a three-year project in cooperation with a 10-unit retail food firm and is designed

to bring about better control of operating standards in retail food stores through the executive responsibility of the store manager. The second study was designed to develop a system for improving the organization and utilization of management and labor in retail food firms. The results of this study have already been utilized in conferences which included the Fifth Annual Food Distribution Research Conference as well as the Delaware Conference on Food Distribution and Management, and the Delaware Conference on Food Distribution as well as in Management Seminars in cooperation with food distribution firms throughout the New England region.

With Professor Marion, Professor Leed developed with the food industry in New England a special one-year program of study in Food Distribution which consisted of six selected students from the employees of five New England food firms. These students were fully sponsored by their respective firms in terms of books, tuition fees, and subsistent expenses. The intent of this program of study is to develop managerial potential for these food firms and is programmed at the University using the full resources of the Department and the College of Agriculture.

Professor Fuller and Professor Rhoades have continued their very successful program of farm management schools and a further refinement of the ELFAC program in the management of commercial dairy farms. Their program is finding excellent reception especially in the developing of the regional extension program of the state and among farmers who are emerging to the magnitude of commercial farming and substantial large=sized business operations.

SPECIAL PROJECTS AND PROGRAMS

An appraisal of the adequacy of animal feed reserves in Massachusetts was made and completed by Professor Brown. This was undertaken at the request of the Dairy Emergency Planning Committee to meet the needs of this group in developing their program. Particular attention was given to emergency needs of livestock and poultry feeders. It considered in the analysis:

1. The requirements by enterprises both in the aggregate and regionally.
2. A determination of inventory management practices at the three levels--farm, feed store, and manufacturing plant.
3. A comparison of reserve capacity in relationship to current purchase or inventory practice. Report was published in mimeographed form.

Two members of the Department staff, Professor Engel, and Professor Storey, served as consultants to the Governor of Massachusetts Board of Economic Advisors. Professor Engel prepared that part of the report entitled "State of Massachusetts Agricultural Economy." This report constituted one of the chapters of the over-all report on Massachusetts economy which was submitted to the Governor's office in December 1964. Professor Storey contributed a chapter on the Massachusetts Commercial Fish Industry for the general economic report which was made a part of the same over-all report submitted to the Governor of Massachusetts, and subsequently published by the Office of the Governor.

A grant for research study of the distribution system of Boston fish was obtained from the Bureau of Commercial Fisheries, United States Department of Interior. This study was under the direction of Professor Storey and under his supervision Mr. Gaston, Research Assistant, collected most of the data from which he will develop a thesis toward a Master's degree. A preliminary report of the study is expected to be ready by the end of the fiscal year. Also, a two-year educational grant in Fishery Economics has been received. This grant will enable a student to study for a Ph.D. in the Economics Department while writing a thesis on Fishery Economics under the supervision and direction of Professor Storey in the Department of Agricultural and Food Economics.

FACULTY PUBLICATIONS

Articles and Book Reviews, Professional Journals

FULLER, EARL I.

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LEED, THEODORE W.

"Discussion: The Nature of Competition Among Food Retailers in Local Markets." Journal of Farm Economics, Dec. 1964, Vol. 46, pp. 1318-1320.

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JARVESOO, ELMAR

"Nursery Trade Flourishes in Bay State." American Nurseryman, 1965.

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BELL, ELLSWORTH W.

"Economist's Memo" and Poultry Statistics. Featheredfax, 1964 monthly.

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"Trend Business and Outlook." Middlesex County Bulletin, Nov, 1964 and April 1965.

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"Federal Milk Marketing Order Decision." Massachusetts Dairy Digest." Cooperative Extension Service, Univ. of Mass., August 15, 1964, pp. 6-7.

"Milk Production, Disposition, and Income in Massachusetts, 1961-62-63," Massachusetts Dairy Digest, Cooperative Extension Service, Univ. of Mass., October 15, 1964, p. 10.

"Dairy Statistics for Massachusetts." Massachusetts Dairy Digest, Cooperative Extension Service, Univ, of Mass., March 15, April 15, May 15, and June 15, 1965.

FULLER, EARL I.

"Tax Matters" (with Lawrence D. Rhoades), Management Memos, July 1, 1964, Vol. II, 5A #1, 3 pp.

FULLER, EARL I.

"The Effect on Massachusetts Farmers of Changes on the Migrant Labor Situation" (with Lawrence D. Rhoades), Management Memos, Vol. IV, No. 2.

RHOADES, LAWRENCE D.

"Tax Matters" (with Earl I. Fuller), Management Memos, July 1, 1964, Vol. II, 5A #1, 3 pp.

"The Effect on Massachusetts Farmers of Changes in the Migrant Labor Situation" (with Earl I. Fuller), Management Memos, Vol. IV, No. 2.

Bulletins

BROWN, ALFRED A.

Marketing New England Poultry: Economics of Broiler Feed Mixing and Production, University of New Hampshire, Agricultural Experiment Station Bulletin 484, 1965.

FOSTER, JOHN H.

The Private Outdoor Recreation Industry in Essex County, Massachusetts, Mass. Cooperative Extension Service Publication 427, January 1965, 74 pp.

The Private Outdoor Recreation Industry in Plymouth County, Massachusetts, Mass. Cooperative Extension Service Publication 431, March 1965, 84 pp.

FULLER, EARL I.

The Economics of On-The-Farm Feed Mixing for Massachusetts Poultry Farmers (with Neville J. G. Doherty), Mass. Cooperative Extension Service Publication 421, July 1964, 14 pp.

JARVESOO, ELMAR

The Massachusetts Nursery Industry, Mass. Cooperative Extension Service Publication 433, 1965.

RUSSELL, SARGENT

Producer Delivery Patterns - New England Milk Markets, USDA Marketing Research Report 672, July 1964, 119 pp.

Extension Occasional Papers

ENGEL, N. EUGENE

Food Marketing Study Guide for 4-H Youth (with Theodore W. Leed), Mimeo., 10 pp.

LEED, THEODORE W.

Improving the Performance of Retail Food Store Managers (with Kenneth G. Abrahams), Food Distribution Program, Management Information Series, Mass. Cooperative Extension Service, September 1964, 28 pp.

Research Papers in Food Distribution (ed. with Donald R. Marion), Mimeo., April 1965, 95 pp.

Food Marketing Guide for 4-H Youth (with N. Eugene Engel), Mimeo., 10 pp.

MARION, DONALD R.

Research Papers in Food Distribution (ed. with Theodore W. Leed) Mimeo., April 1965, 95 pp.

Other Writings

BELL, ELLSWORTH W.

Forecast 1965 Milk Prices by Months - Massachusetts, January 1965.

A Review of Research - Agricultural and Food Economics, March 1965.

BROWN, ALFRED A.

"Feed Transportation Today," 1964 Proceedings, New England Agricultural Economic Council, pp. 94-99.

"Grain Rate Adjustments and Readjustments in Perspective," Proceedings, Transportation Research Forum, December 1964.

Feed Reserves in Massachusetts in Relationship to Requirements of the Livestock and Poultry Enterprise, Mimeo., May 1965, 28 pp.

ENGEL, N. EUGENE

Income Effects of a Five-Market Merger on a Thirty Cow Milk Producer, Mimeo., July 1964.

Final Decision for Market Merger, Mimeo., August 1964.

Final Decision on Merger of Federal Milk Orders, Mimeo., August 1964.

Recommendations of U.S.D.A. Advisory Committee on Milk and Dairy Products, Mimeo., December 1964.

New England Agricultural Economic Council, 1964 Proceedings, (Editor for papers presented at annual conference). Mimeo., December 1964, 104 pp.

ENGEL, N. EUGENE

An Approximation of the Massachusetts-Rhode Island Milk Shed, Mimeo., February 1965.

Milk Production, Disposition, and Income in Massachusetts 1962-63-64, Mimeo., April 1964.

FOSTER, JOHN H.

"Farm Real Estate Assessment in Nine Massachusetts," 1964 Proceedings - New England Agricultural Economics Council, p. 30.

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An Interregional Quadratic Programming Model for Varying Degrees of Competition (with Yoshihiro Maruyama), Mimeo., 1964, 46 pp.

Products and Resources Per Cow Year in the Herd, Mimeo., 1965.

LEE, DEANE

"Urban Growth and Agricultural Change," 1964 Proceedings, New England Agricultural Economic Council, pp. 26-29.

Urban Impacts on Massachusetts Rural Communities, Mimeo. for Seminar for Rural Clergy, October 1964.

Changes in New England Agriculture. Mimeo, for Seminar on Agricultural, Food, and Resource Use Policy, December 1964.

LEED, THEODORE W.

An Analysis of Food Store Sales Potential in the Amherst Area, (with Bernard J. Doherty), Mimeo., October 1964, 20 pp.

Frozen Food Out-of-Stocks -- What is the Problem? (with Donald M. Moore), Mimeo., December 1964, 12 pp.

"A Systems Analysis and Scheduling Procedure for Retail Food Firms" (with Leslie C. Young), Research Papers in Food Distribution, April 1965, pp. 75-95.

"Improving the Performance of Retail Food Store Managers," (with Donald M. Moore). Paper presented at Univ. of Delaware Food Distribution Conference, April 1965.

RHOADES, LAWRENCE D.

Notes on Business Records and Selling Timber (with John H. Noyes), June 1965.

STOREY, DAVID A.

An Appropriate Marketing Research Program for this Department, Mimeo., October 1964, 22 pp.

ANNUAL REPORT

Cranberry Experiment Station
July 1, 1964 - June 30, 1965

5. The following publications by staff of the Cranberry Station appeared during the fiscal year:

a. Brzeski, M.W. and B.M. Zuckerman. Morphological Variations, Life Stages and Emended Description of Hemicycliophora zuckermani Brzeski. Nematologica 11 (1965): 66-72.

b. Demoranville, I.E. and C.E. Cross. Casoron and Weed Control in Cranberries. Cranberries Magazine, Vol. 29, No. 4, pg. 13. Aug. 1964.

c. Zuckerman, B.M. and Kenneth Rochefort. Evaluation of Newer Fungicides on Cranberries in Massachusetts. Cranberries Magazine, Vol. 29, No. 10, pg. 10. Feb. 1965.

d. Zuckerman, B.M. and M.W. Brzeski. Methods for the Study of Plant Parasitic Nematodes in Gnotobiotic Root Culture. Nematologica 11 (1965): 46.

e. Chandler, F.B., I.E. Demoranville and K. Hayes. New Cranberry Varieties for Processed Products. Cranberries Magazine, Vol. 30, No. 1, p. 7. May, 1965.

The following manuscripts have been prepared and after editorial processing will be printed:

a. Tomlinson, W.E. Observations Concerning Mating and Reproductive History of Black-Light-Trapped Cranberry Fruitworm, Acrobasis vaccinii Riley. 7 pages. Will be submitted to Journal of Econ. Ent.

b. Miller, C.W. Quantitative Persistence of Dieldrin in Cranberry Bog Soils. 5 pages. Will be submitted to Journal of Econ. Ent.

c. Cross, C.E. Management of Flood Waters on Massachusetts Cranberry Bogs. 46 pages. Will be submitted as an Experiment Station Bulletin.

d. Digest of Seven Seminars on Aspects of Cranberry Production. Jan. 20 to March 10, 1965. Lectures prepared and presented by: C.E. Cross, I.E. Demoranville, G.B. Rounsville, J.S. Norton, W.E. Tomlinson, R.L. Norgren. Mss. is 55 pages in length, has been submitted to Amherst as an Extension Service publication primarily for distribution to Massachusetts cranberry growers.

e. Five monthly advisories were prepared by C.E. Cross and seven by I.E. Demoranville and printed in the Cranberries Magazine during the past year.

f. Finally, a 26-page progress report "Analysis and Appraisal of 17 Cranberry Varieties" has been submitted to Ocean Spray Cranberries, Inc. under terms of their grant. The following staff were involved: B.M. Zuckerman, I.E. Demoranville, C.W. Miller and R. L. Norgren. Cooperators from Food Tech. Dept. include J. Francis and K. Hayes.

6. Beside the published or written achievements noted above, significant and promising initial work on bulk handling and bulk storage of cranberries has been achieved by Prof. J.S. Norton. In addition, he has designed and started construction of a one-fourth scale new cranberry picking machine. Norton's earlier work on sprinkler frost protection bore fruit this spring as Massachusetts cranberry growers invested an estimated $600,000 in over 1000 acres of new solid set sprinkler systems.

Dr. Zuckerman and his associates have noticed a repellent effect of predacious nematodes on free-living forms. This is being followed up with vigor, for the possibilities, if it can be shown to be a chemical responsible, are almost limitless. This work should remain administratively confidential.

In cooperation with Drs. Gunner and Walker of the Institute of Microbiology,

Drs. Zuckerman and Miller are studying the breakdown of C^{14}-labelled diazinone under gnotobiotic conditions. A first manuscript is in preparation.

7. The transfer of Prof. Demoranville from weed research to extension specialist produced one of the more successful educational programs here in recent years. A series of 7 lectures and seminars was held from January 20 to March 10. Attendance at each seminar varied from 80 to 175 (series total 885). Recent advances in pertinent subject-matter areas was covered by the staff as follows:

John S. Norton - Sprinkler Frost Protection.

C. E. Cross - Winter Flood, and Early vs. Late-Water on Massachusetts Cranberry Bogs.

W. E. Tomlinson - Cranberry Insects.

I. E. Demoranville - Weeds of Cranberry Bogs--Their Propagation, Spread and Control.

G. B. Rounsville - Notes on Frost Forecasts and Frost Protection.

I. E. Demoranville - Fertilizer for Cranberries.

C. E. Cross - Cranberry Flowers and Pollination.

I. E. Demoranville - New Cranberry Varieties.

W. E. Tomlinson and C. E. Cross have been actively cooperating with the State Department of Natural Resources on the problem of controlling the gypsy moth infestation on Cape Cod and in helping to monitor the carbaryl (Sevin) control program as it relates to wild bee pollinators. Unfortunately, before the program of spraying is complete, we know it is a failure in preventing the spread of the dread insect.

8. A new pesticides research facility has been planned. $40,000 of federal matching funds have been allocated, and through the Cape Cod Cranberry Growers Association a bill (S-913) has been introduced into the Legislature by Sen. Allan Jones to provide $100,000 of state matching funds. The bill has passed the senate education committee and is now in Ways and Means. If approved, the

bulk of the funds would be used for a new building; equipment funds would then be sought from N.S.F. Cranberry Growers have voted to give additional land to the Station.

Post-doctoral fellow, Dr. Brzeski of Poland, spent a very productive year with us. Dr. Karl Deubert from E. Germany is now here and we expect continued achievement from him. Mr. Robert Norgren has joined the staff and will do his Ph.D. research and thesis under our guidance.

Dr. C. W. Miller has joined the staff as the first station biochemist. His work should contribute materially toward reducing environmental contamination.

Candidates are being screened for a station plant physiologist who will be responsible for continuing the weed research program.

Several federal grants will provide funds for technical assistants.

6. Major accomplishments for fiscal 1964-65.

Teaching Load. In a rapidly expanding university with a major emphasis on teaching, we take pride in our steadily growing teaching program. This is shown in graphic form in the first attachment to this report, but a few details are worthy of special mention.

According to a report issued by Dean F. P. Jeffrey on April 1, 1965, we taught 50 per cent more undergraduates in 1964-65 than any other department in the College of Agriculture -- 650 as compared with 420 for the next largest teaching department. Another tabulation from Dean Jeffrey's office dated April 22 showed that two of the three top enrollment courses in the College of Agriculture are in our department -- 420 in Entomology 26 and 75 in Entomology 90, each of which is taught both semesters. The Stockbridge teaching program is correspondingly strong, as is shown on the attached graph. The graduate teaching load is substantial, although numerically it appears small by comparison.

Maple Decline Project. When a study of the cause or causes of "maple decline" was initiated by a special legislative appropriation, supplemented by McIntire-Stennis funds, our department assumed a major role. At present the following individuals, listed alphabetically, are leaders in the subprojects named:

G. N. Agrios - Virology
W. M. Banfield - Ecology and Site Factors
W. B. Becker - Insects and Mites
F. W. Holmes) - Fungi and Man-made Disturbances
M. A. McKenzie)
R. A. Rohde - Nematology

It is much too early to predict where these studies will take us but some leads have already been established. Detailed punch-card records of maple ailments over a period of years are suggestive of the potential effects of drouth and certain other factors (see separate report of Professors McKenzie and Holmes). Dr. Banfield has brought together a long series of observations pointing toward drouth and man-inflicted abuses as contributing factors. Dr. Agrios has recovered a virus which is now being subjected to critical testing. Dr. Becker has initiated defoliating experiments to simulate defoliation by leaf-eating insects.

Tree Care and Protection. The most exciting "new" work in progress under this heading is the testing of Bidrin, a systemic insecticide, for the control of the bark beetles which serve as vectors of the Dutch Elm Disease by Professors McKenzie, Becker and Holmes. At present the emphasis is on laboratory testing of the beetles on twigs collected from treated trees. Less spectacular but more long-range in approach is the testing of elms grown from irradiated seed for resistance to the Dutch Elm Disease. Each of these topics is covered in more detail in the separte report from the Shade Tree Laboratories which is attached.

On the entomological side, Dr. W. B. Becker has been vindicated in his early conclusion that very heavy dosages of DDT to control the bark beetle vectors of the Dutch Elm Disease might be hazardous. Methoxychlor, a safer material which he proved to be effective some 15 years ago, is now being used in some locations for this purpose. Dr. Becker has also demonstrated that aqueous BHC sprays are effective against wood-destroying insects in logs, even when applied in the fall to protect the logs the following spring.

Massachusetts Pesticide Law. Members of our Staff have cooperated in various ways to make this law effective and yet not unduly restrictive. Dr. E. H. Wheeler is the official advisor and consultant to the Pesticide Board, and he has been of real service in keeping its program on an even keel. Professors H. E. Wave and J. H. Lilly have been substituting for Dr. Wheeler while he was on sabbatical leave. Professors Wheeler and McKenzie contributed substantially toward an extension circular designed to help prospective licensees prepare for their examinations. Dr. T. M. Peters gave a special course on this subject for employees of the New England Tree Expert Company.

Grants-in-Aid and Gifts. The following grants-in-aid have been in effect during the year: (1) Dr. R. A. Rohde: N.S.F. grant to study the effects of phenolic compounds in roots on plant-parasitic nematodes. (2) Dr. J. F. Hanson: U.S.P.H.S. grant to study the taxonomy and biology of stoneflies in the Northeast. (3) Drs. J. H. Lilly and H. L. Sweetman: U.S. Forest Service grant to study the biological control of the Matsucoccus scale of red pine. (4) Dr. J. H. Lilly: Shell Chemical Company Fund (unrestricted).

These substantial gifts were presented to the department during the year, all of them unrestricted: (1) A group of Pest Control Operators in New York City contributed $1050.00 for the construction of a refrigerated cold room (10' x 12' x 7½'). (2) The Harrison Tietz collection of Lepidoptera, worth perhaps $1500.00, has been presented to the department, subject to acceptance by the Board of Trustees. (3) The Pest Control Operators of the Northeast have presented an automatic adding machine-calculator to the department.

Special Conferences. The 26th Annual Eastern Regional Pest Control Operators Conference was held in January, with some 125 registrations. The Annual Conference for Tree Wardens, Arborists and Utilities ran for five days in March.

Sabbatical Leaves. Two members of our Staff have been on sabbatical leave during the year - Dr. Marion E. Smith for the academic year and Dr. E. H. Wheeler for the second semester. Two additional sabbatical leaves have been granted for next year - Dr. J. F. Hanson for the academic year and Dr. J. H. Lilly for the first semester.

7. Special Projects and Programs for 1964-65.

This topic has been covered in part above. Therefore certain aspects need only to be mentioned briefly.

Teaching. We consider this our major function and the primary reason for our existance. It has already been covered in some detail.

Maple Decline Project. This is our biggest single research undertaking. The six Staff members directly involved, along with their respective areas of specialization, have already been listed.

Pesticides Information Center. This new function, with Dr. E. H. Wheeler as its Leader, is intended to serve as a ready and reliable source of information on any pesticide, including its uses, potential hazards, and restrictions on its use. It is expected that it will serve Massachusetts especially, but that it may well become the focal point for such information for the Northeast.

Angular Leaf Spot. The control of this disease of cucumbers in the Connecticut Valley was the subject of an extension testing program directed by Dr. C. J. Gilgut and largely carried out by Mr. Paul Rollander during the 1964 season.

Honors and Orchard Hill Programs. Participants in the Honors Program from our department included Dr. G. N. Agrios for the academic year and Dr. R. A. Rohde for the second semester. Dr. T. M. Peters has agreed to serve in the same capacity for 1965-66. Faculty Fellows in the Orchard Hill Program included Dr. R. A. Rohde (Emily Dickinson House) and Dr. J. H. Lilly (Eugene Field House), both for the academic year.

Conferences. The Northeastern Regional Pest Control Operators Conference and the Tree Wardens, Arborists and Utilities Conference have already been mentioned.

8. FUTURE PLANS AND NEEDS

This topic has been covered in previous communications, and needs only a short review here. In brief, we need to plan to teach more students and to improve our teaching in every way possible, and to expand and broaden our research activities. The latter should include enlargement and strengthening of our graduate training program.

Professional Staff. The new positions we have requested are as follows: (1) An insect physiologist-toxicologist to develop this vitally important field of entomology so as to make us fully competitive with other leading Land Grant schools. (2) A medical entomologist to build up the teaching and research in this field, which will generate even more interest with the start of a Medical School. (3) A plant pathologist specializing in wood-destroying organisms, and perhaps doubling in bacterial diseases of plants.

Physical Plant. Fernald Hall is an old and out-dated building in urgent need of extensive renovation. The major requests we have made are as follows: (1) Safe and modern new seats in the auditorium (Room D). (2) Fluorescent lighting for all classrooms and offices which do not have modern lighting now. (3) Asphalt tile floors for all classrooms, hallways and offices which are not already tiled.

Actually we are much in need of a new building but the above stop-gap improvements would serve us, as well as the next occupants of Fernald Hall. An air-conditioned instrument room, an animal room, constant temperature rooms, and more library space are additional needs.

Equipment. We are still short of important equipment, although many gains have been made in recent years. Among the items still needed are more microscopes, plant growth chambers and a refrigerated preparative ultra-centrifuge.

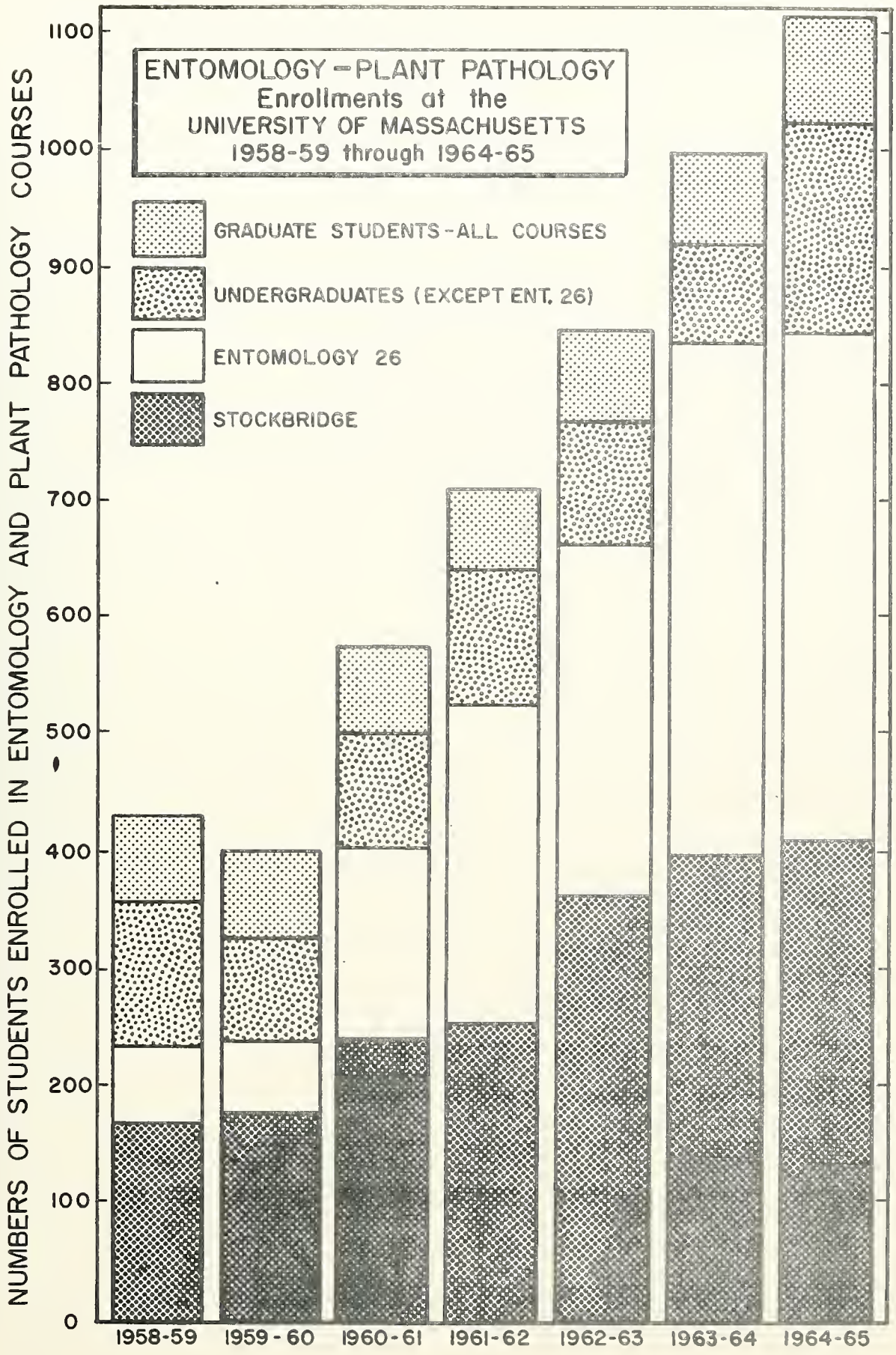
Respectfully submitted,

J. H. Lilly

J. H. Lilly

June 1, 1965

Attachments - 2
Student enrollment 1958-59 through 1964-65
Report from Shade Tree Laboratories


ENTOMOLOGY – PLANT PATHOLOGY
Enrollments at the
UNIVERSITY OF MASSACHUSETTS
1958-59 through 1964-65
GRADUATE STUDENTS - ALL COURSES
UNDERGRADUATES (EXCEPT ENT. 26)
ENTOMOLOGY 26
STOCKBRIDGE
NUMBERS OF STUDENTS ENROLLED IN ENTOMOLOGY AND PLANT PATHOLOGY COURSES
0
100
200
300
400
500
600
700
800
900
1000
1100
1958-59
1959-60
1960-61
1961-62
1962-63
1963-64
1964-65

UNIVERSITY OF MASSACHUSETTS

Memorandum

From: Shade Tree Laboratories Date: May 28, 1965

To: Dean A. A. Spielman (Copy to Dr. J. H. Lilly)

Subject: Annual Report

5. Faculty publications, projects, professional activities, etc.

The chief activities of the Laboratories, as provided by statute are centered around cooperative programs with tree departments of the 351 cities and towns of the Commonwealth. Included in the broad program objectives are research, regional and State projects and special programs dictated by emergency needs such as the current maple decline studies and direct or indirect control of the Dutch elm disease with systemic chemicals, especially Bidrin--a systemic insecticide. Currently, interest in elm trees is at such a high point among professional arborists and the general public that a new publication entitled "Elm Bulletin" has been published (Spring, 1965). Dr. James M. Hester, Pesident of New York University, is Chairman of the Editorial Board. The publication champions the planting of elm trees and the justification given is that control of the Dutch elm disease within reasonable limits is practicable.

Graduate students have been assigned to the Laboratories in the past, and currently funds have been provided for this purpose in 1965-66, if a suitable candidate can be found. Traditionally, the Laboratories have contributed materially to the teaching program and an informal seminar in Plant Pathology organized by Dr. F. W. Holmes for several years has been approved for academic credit as of September, 1965. It should also be pointed out that personnel on the Laboratories' staff participates in classroom instruction and preparation of laboratory materials to the extent that these procedures are possible with the statutory requirements of the principal program. In fact, the Laboratories were primarily responsible for establishing the first instruction in the current teaching program in arboriculture and have contributed progressively in organizing and supervising specialized laboratory studies.

The Shade Tree Laboratories will be host to the Northeastern Forest Pathology Workshop in the Spring of 1966. The 1965 Workshop included about 40 forest pathologists of the northeastern United States and eastern Canada and was held in Quebec City, Quebec, Canada, April 27-29, 1965. In July, 1965, the annual meeting for Regional Project NE-25 will be held at the University of Massachusetts and in September, 1965, the Northeastern Forest Pest Council will meet in Massachusetts and visit sites of pest control as arranged in conjunction with the Shade Tree Laboratories. Other activities and meetings in which the Laboratories participate regularly are listed below:

Five-Day Conference for Tree Wardens, Arborists and Utilities
Massachusetts Tree Wardens' and Foresters' Association
Annual Dutch Elm Disease Conference
American Phytopathological Society
Northeastern Division, American Phytopathological Society
Monthly Meetings, Regional Tree Wardens and Moth Superintendents Associations
International Shade Tree Conference
Massachusetts Arborists Association
A I B S

A. A. S. #2 5.28.65.

F. W. HOLMES

Publications:

Aug. 1964. COMPARATIVE RESISTANCE OF CERTAIN ELM CLONES TO CERATOCYSTIS AND VERTICILLIUM WILTS. Phytopathology 54(8):986.

Sept. 1964. DUTCH ELM DISEASE: RESISTANCE AND VIRULENCE. In: McGraw-Hill's Encyclopedia of Science and Technology, Yearbook 1965:168-169.

Nov. 1964. VARIATIE EN OVERERVING BIJ CERATOCYSTIS ULMI (BUISMAN) C. MOREAU. Verslagen en Mededelingen der Koninklijke Nederlandse Botanische Vereniging over het jaar 1963 (Jaarboek 1964):51.

Mar. 1965. VIRULENCE IN CERATOCYSTIS ULMI. MET EEN SAMENVATTING: VIRULENTIE BIJ CERATOCYSTIS ULMI. Accepted for publication as of Mar. 16, 1965, by The Netherlands Journal of Plant Pathology (Tijdschrift over Plantenziekten). 27 typewritten pages plus 3 tables and 2 photos.

Mar. 1965. INVESTIGATION OF TREE DISEASES IN MASSACHUSETTS (DECLINE OF MAPLES; CYTOSPORA CANKER OF NORWAY MAPLE; EFFECTS ON TREES FROM SALTING OF ROADS IN THE CONNECTICUT VALLEY OF MASSACHUSETTS; DUTCH ELM DISEASE). Assembled in proceedings, 6th Northeast Forest Pathology Workshop (Mimeographed), Laval Univ., Quebec City, Quebec, Canada, Apr. 27-29, 1965. With: M. A. McKenzie.

Professional Activities other than Publications:

A. Writing up and securing approval of the expansion of the Plant Pathology Seminar speakers' series, which I conducted for 7 semesters, into Course Number 790, which I am to teach, for 1 hour student credit.

B. On own time (annual leave) and at own expense, conducted Ir. H. M. Heybroek of the Netherlands Forestry Experiment Station on a 4,444-mile tour of all U. S. and Canadian Experiment Stations where selection of elms for resistance to the Dutch elm disease has been carried out. The result of this series of visits and of our discussions en route was the institution of a program of breeding for disease resistance in Ulmus americana under the appropriate subheading already approved in our project Hatch 110, contributing to NE-25.

C. Report to M. A. McKenzie on 7,471 diagnoses of miscellaneous tree troubles diagnosed by Laboratories' staff since Jan. 1, 1955, including 994 during calendar 1964.

D. Translation from the Dutch of some 250 double-spaced typed pages, constituting all of the Annual Reports of the Dutch program for elm tree breeding in past 11 years.

Particular Accomplishments During the Past Year or Two:

The experiments on virulence and resistance reported in the first 4 technical publications listed previously, and the consequent initiation of the program of breeding of Ulmus americana trees selected for resistance to Dutch elm disease. Most recently: confirmation of resistance of Hemiptelea davidii to Dutch Elm Disease wilt and production of a susceptible clone of U. americana for standardization of Dutch elm disease experimental work on national basis. Each of these may rate a professional talk and an abstract in Phytopathology in the near future.

A. A. S. #3 5.28.65.

M. A. McKENZIE

Publications:

June 1964. CYTOSPORA CANKER OF NORWAY MAPLE. Mimeo. Cir. With: F. W. Holmes.

Oct. 1964. CONFERENCE SUMMARY - METHODS TO CONTROL THE DUTCH ELM DISEASE. Proceedings of Nineteenth Annual Conference on Dutch Elm Disease, Pages 17-18.

Jan. 1965. STUDY BOOKLET FOR THOSE PREPARING TO TAKE EXAMINATIONS FOR LICENSES TO APPLY PESTICIDES. Special Circular 287, prepared by Staff of the College of Agriculture, University of Massachusetts and Members of the Pesticide Board, Commonwealth of Massachusetts.

Feb. 1965. NATURAL INFECTION OF BUISMAN ELM BY CERATOCYSTIS ULMI. Phytopathology 55(2): 130.

Mar. 1965. INVESTIGATION OF TREE DISEASES IN MASSACHUSETTS. Assembled with papers in Forest Pathology Workshop, Sillery, Quebec, Canada, April 27-29, 1965. With: F. W. Holmes.

1964-65. PROGRESS REPORTS - Dutch elm disease - Mimeographed.
June 1, 1964
Sept. 1, 1964
Jan. 1, 1965
June 1, 1965

Professional Activities Other than Publications:

Many thousands of dollars annually are saved for home owners and municipalities by timely investigation of claims of promoters relative to remedies for tree diseases, especially the Dutch elm disease. The integrity of the Laboratories relative to "cures" is so well known to municipal tree departments, professional arborists, the public and the press that hardly a day passes without inquiry about some "tree magic" that has proved a costly fraud elsewhere, but meets an instant challenge in Massachusetts.

Particular Accomplishments During the Past Year or Two:

A. The Report of Natural Infection of Buisman Elm by the causal fungus of the Dutch elm disease, Ceratocystis ulmi, listed under publications.

B. Participation in the preparation of study booklet listed under publications. Under a new Massachusetts statute, certain users of pesticides are required to have a license. The task of obtaining, selecting and organizing information useful to more than 3000 applicants was a cooperative assignment with many obstacles. The experience was revealing and the imperfect final product helped accomplish an essential job. A revised publication later will certainly benefit from expected help by Monday-morning quarterbacks and also good hindsight.

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6. Major Accomplishments for 1964-65.

State 228. Salt injury research has been summarized to date in a manuscript intended for PHYTOPATHOLOGY (7 typewritten pages plus 2 figures and 1 table) entitled: SALT INJURY TO TREES. II. SODIUM AND CHLORIDE IN ROADSIDE SUGAR MAPLES IN MASSACHUSETTS. This is under review and to date has been reviewed by 6 colleagues.

Jan. 1965. [illegible]

Jan. 1964. [illegible]

Dec. 1965. [illegible]

Feb. 1964. [illegible]

Dec. 1962. [illegible]

[illegible]
June 1, 1958
[illegible]
Jan. 1, 1959
Jan. 1, 1957

NE-25. In 1964 another half-million elm seeds were irradiated, and the trees from the 1961 irradiation of seeds were inoculated with the Dutch elm disease fungus. None proved immune, but 4 or 5 trees reacted much less severely than most. Inoculations of the trees that grew from elm seed irradiated in 1961 and 1962 will be performed this June.

Maple Decline. 10 years' punch-card Shade Tree Laboratories diagnosis records for maples were analyzed by Professor Westing, who found a correlation between drought years and increase of tree troubles 2 years later, ascribable to either drought or unknown causes or civilization (but not to fungi, insects, etc.). We may anticipate that our diagnosis records will become more valuable as the number of cards increases.

7. Special projects or programs.

Maple Decline. Inoculation of maple trees in Shade Tree Laboratories research nursery with fungal and bacterial cultures isolated in these Laboratories from unthrifty maple trees showed that in several cases these fungi were Nectria sp., which proceeded to form cankers and fruiting pustules on the inoculated trees.

DUTCH ELM DISEASE

Tests were made in trees in state parks, street trees and nursery trees in cooperation with the Department of Natural Resources, Bureau of Insect Pest Control, and with personnel of the state parks, and with town Tree Wardens, using HRS-211 (Hooker Chemical Company), Bropene (Nordic Company), and Bidrin (Shell Chem.Co.) for control of Ceratocystis ulmi (first 2 chemicals) and Scolytus multistriatus (third chemical). The first two had no evident effect upon the course of disease in naturally inoculated elms (HRS-211) or in artificially inoculated elms (both). Evaluation of Bidrin is not yet completed. These tests of commercially offered chemical control measures are an appropriate aspect of our control service operation.

8. Future plans and needs (facilities, personnel, equipment, etc.)

Complete details were given in a previous report.
Briefly, the most urgent need is for a Technical Assistant for grafting and vegetative propagation of trees and to take responsibility for nursery used for both maple and elm research, and to perform maple decline experiments as assigned. This appointment is particularly needed as compensatory time to research and control for increased teaching demands on staff as mentioned previously.

Also a top priority is nursery space for long-term clone garden of elm genotypes resistant to Dutch elm disease.

New building presumably is under way "with all deliberate speed" (planning committee exists).

ENVIRONMENTAL SCIENCES

ANNUAL REPORT
ENVIRONMENTAL SCIENCES DEPARTMENT
UNIVERSITY OF MASSACHUSETTS

July 1, 1964 - June 30, 1965

5. (a) FACULTY PUBLICATIONS:

Campbell, Franklin J. 1964 - Mass. Geranium Growers Meeting at Waltham. Florists Review, No. 3492, pp. 23-24, 96.

_____ 1964 - Mass. Flower Growers Meeting. Florists Review, No. 3493, pp. 26, 69-73.

_____ 1965 - Mass. Grower Topics: Air Pollution, Research. Florists Review, No. 3507, pp. 27, 90-91.

_____ New England Carnation Growers Study: Tip Culture, Fusarium. Florists Review, No. 3516, pp. 41-42, 90.

Faddoul, George P. 1964 - Trends in Turkey Health. Turkey World, Vol. 39, No. 7.

_____ and Gordon W. Fellows. 1965 - Fourteenth Annual Report of Veterinary Pathology. Avian Diagnostic Laboratory, Department of Environmental Sciences, University of Massachusetts, pp. 1-6.

_____ and Gordon W. Fellows. 1964 - Clinical Manifestations of Paratyphoid Infection in Pigeons. Avian Diseases, Nov. 2, 1964.

_____ and Gordon W. Fellows. 1965 - Clinical Manifestations of Eastern Encephalitis in Pheasants. Avian Diseases, February 15, 1965.

_____ 1965 - Animal and Poultry Feed a Vehicle for Salmonella and Other Pathogens. Merck Agricultural Memo, March 12, 1965.

_____ Gordon W. Fellows and James Baird. 1965 - A Survey on the Incidence of Salmonellae in Wild Birds. Avian Diseases, June 21, 1965.

Fellows, Gordon W. 1965 - Gumboro Disease. Presented at Annual Health Meeting, Waltham Field Station.

Galinat, Walton C. 1964 - Some Observations on the Dissemination of Tripsacum. Rhodora 66:371-374. (With F. C. Craighead)

_____ 1965 - Maize Production and the Manuring of Maize by Joseph Berger in Economic Botany 19:93.

Galinat, Walton C. 1965. Maize Cooperation News Letter 39:75-78.

1. Tripsacum dactyloides homeolog to corn chromosome 9 covers three short arm recessives. (With P. C. Mangelsdorf)

2. Chromosome arm differences between corn and Tripsacum. (With P. C. Mangelsdorf)

3. Gross translocations or fragmentation in Tripsacum chromosomes?

4. Possible unreduced eggs in corn x T. floridanum hybrids and hybrid derivatives. (With R. S. K. Chaganti and P. C. Mangelsdorf)

_____ The evolution of corn and culture in North America. A paper presented at the Symposium; Integrated Research in Economic Botany VI: Ethnobotany of some New Work Cultures, Part II: Crops of Major Importance. AAAS Meetings, Montreal, Canada, December 30, 1964.

_____ 1965. The evolution of glumeless sweet corn. Presented at the spring meeting of the Society for Economic Botany at University of Rhode Island, June 15-18, 1965.

_____ 1965. The gene content of Tripsacum chromosomes in terms of corn chromosomes. Presented at the Maize Genetics Conference at the University of Illinois, Allerton House, March 13-14, 1965.

_____ 1964. Tripsacum as a possible amphidiploid of wild maize and Manisuris (With R. S. K. Chaganti and F. D. Hager). Bot. Mus. Leaflets, Harvard Univ. 20 (1964), 289-316, 3 pls.

_____ 1964. The domestication of maize (With P. C. Mangelsdorf and R. S. MacNeish). Science 143 (1964), 538-545, 7 figs.

_____ 1964. The tunicate locus in maize dissected and reconstituted (With P. C. Mangelsdorf). Proc. Nat. Acad. Sci. 51 (1964) 147-150.

Garland, William J. 1964. Aphid Control, National Chrysanthemum Society, Inc., U.S.A., Vol. 20, June 1964, No. 3.

Gunner, H. B. and R. W. Walker. 1965. Selective effect of diazinon on soil and rhizosphere microflora. Bact. Proc. 6.

Litsky, Warren Developments in Industrial Microbiology - Supplement Vol. 6, (With C. F. Koda, D. C. Wehner, and Saul Rich). SIM, 1964, 16 pp.

Litsky, Warren — Society of Industrial Microbiology Newsletter, Amherst, 1964, Vol. XV. No. 1, 2, and 3, 60 pp.

_____ — A negative enrichment technique for the isolation of beta hemoplytic streptococci (With H. P. Dalton, E. P. Larkin, and R. B. Reed, Am. J. Med. Tech., 30(1964) 271-275.

_____ — Comparative evaluation of the cotton swab and ROBAC methods for the recovery of Bacillus subtilis spore contamination for stainless steel surfaces (With R. Angelotti, J. L. Wilson, and W. G. Walter), Health Lab. Sci. 1 (1964) 289-297.

_____ — Evaluation of media for the isolation of enterococci from frozen meat and poultry pot pies (With R. C. Tilton), Bact. Proc. (1964) 112.

_____ — Presumptive enumeration and confirmative methods for identifying Clostridium perfringens in the presence of Streptococcus faecalis (With J. H. Green), Bact. Proc. (1964) 1:4.

_____ — Chemical and Biological Hazards in Foods -- A Book Review ASM News (1964) 30:27-28.

Tilton, R. C., W. Litsky, and H. Gunner. 1965. Selenite Reduction by Enterococci. Bact. Proc. 10.

Daoust, D. R., H. M. El-Bisi, and W. Litsky. 1965. Thermal destruction kenetics of a lactic Streptococcal bacteriophage. J. Applied Microbiology 13:478-486.

Naegele, John A. — Daily Rhythm of Narcotic Sensitivity in the House Cricket, Gryllus domesticus L., and the Two-Spotted Spider Mite, Tetranychus urticae Koch. (With J. W. Nowosielski, R. L. Patton). J. Cellular & Comp. Physiol., 63 (1964), 393-398, 2 figs.

_____ — Daily Sensitivity Rhythm of the Two-Spotted Spider Mite, Tetranychus urticae, to DDVP. (With B. Polcik and J. W. Nowosielski). Science 145 (1964), 405-406, 1 fig.

_____ — The haemocytes of the Acarid Mite, Caloglyphus Berlesei (Mich. 1963), (With K. Kanungo). J. Insect Physiol. 10 (1964), 651-655, 22 figs.

Rosenau, W. A. and J. J. McRitchie. 1964. An observation of boron deficiency symptoms on roses. Plant Disease Reporter 48(12): 948-949.

Rosenau, W. A. — 1964. The influence of Cycocel on Ecke's White Poinsettia. Mass. Flower Growers' Bulletin 85, July, 1964.

Snow, J. A. 1964. Effects of light on initiation and development of bean rust disease. Ph.D. Thesis. The Pennsylvania State University.

5. (b) PROFESSIONAL ACTIVITIES: Our faculty have attended and participated in the following professional meetings.

Annual Flock Health Conference, Durham, New Hampshire
Annual Health Meeting, Waltham Field Station, Waltham, Massachusetts
Salmonellosis Seminar, Massachusetts Public Health Association Meeting
37th Annual Meeting of Northeastern Conference of Avian Diseases, Pennsylvania State University, University Park, Pennsylvania
Training Course "Bioassay and Pollution Ecology," Public Health Service, Waltham Field Station
International Conference on Radiation Preservation of Foods, Boston, Massachusetts
Eighth Poultry Pathologist Conference, Princeton, New Jersey
Northeastern Turkey Producers' Conference, Amherst, Massachusetts
Seminarian Anesthesiology, Massachusetts Veterinary Medical Association, Cambridge, Massachusetts
New England Meeting of Avian Nutritionists and Pathologists, University of New Hampshire, Durham, New Hampshire

Seminar on Salmonellosis. Massachusetts Public Health Association, Auburn, Massachusetts
Gas Chromatography Pesticide Workshop, Waltham Field Station
Massachusetts Flower Growers' Annual Meeting
Air Pollution Control Association
Health Physics Society
American Institute of Industrial Hygiene
American Society for Horticultural Science
New England Carnation Growers' Preplanting School
Entomological Society of America
AAAS

Society for Economic Botany
Maize Genetics Conference
New York, New England Fruit Conference, University of Maine, Orono, Maine
Pest Control Operators' Conference, University of Massachusetts, Amherst, Massachusetts
Turf Conference, University of Massachusetts, Amherst, Massachusetts
Northeastern Mosquito Control Conference, Bridgewater State College, Bridgewater, Massachusetts
New York Insecticide and Fungicide Conference, Cornell University, Ithaca, New York
New England Agricultural Chemical Conference and Herbicide Workshop, Concord, New Hampshire
Massachusetts Fruit Growers Association, Harvard, Massachusetts
Massachusetts Nurserymen's Annual Short Course

Society of Industrial Microbiology
National Carrot Breeding Conference, El Centro, California
American Society for Microbiology
Massachusetts State Science Fair - M.I.T. (Judge)

5. (b) PROFESSIONAL ACTIVITIES: (Continued)

Massachusetts Tree Wardens, Arborists and Utilities Conference
New England Forest Pest Council
Massachusetts Tree Wardens' and Foresters' Association
New England Chapter - International Shade Tree Conference
Massachusetts Poultry Association - Award - April 14, 1965
A bronze plaque presented to Dr. George P. Faddoul for "outstanding service in recognition of his continued contributions to the Massachusetts poultrymen."

5. (c) OTHER PUBLIC SERVICE: The Waltham facility is used continually by non-profit groups in the Commonwealth. The following list indicates the organizations that have used our facility along with the number of meetings and the total attendance at these meetings.

Lexington Field & Garden Club
Hotel & Restaurant Management Course
Graduate Course - County Agents
New England Carnation Growers Association
Nutrition Course (Middlesex County)
American Gloxinia Society
Massachusetts Home Economics Association
Massachusetts Flower Growers Association Board of Directors
Annual Homemakers Day
Waltham Better Gardens Club
Massachusetts Arborists Association
Horticultural Meeting of State of Massachusetts

Gas Chromatography Workshop - 3 days
Mycological Society
Middlesex County Home Economics Department
County Agent Training Program
Massachusetts Golf Course Superintendents
Poultrymen's Association
Associated Landscape Contractors of Massachusetts
Hemerocallis Society
Middlesex County Beekeepers Association
Garden Club Federation
Massachusetts Orchid Society
U.S.D.A. Consumer and Marketing Service

Belmont Garden Club
Tree Wardens and Arborists
New England Gladiolus Society
Pesticide Examination - Department of Public Health
New England Vegetable Growers Association
U.S.D.A. Defense Board
Massachusetts Nurserymen's Association
U. S. Public Health
Regional Extension Conference
Greenhouse Tomato Growers
Home Economics Teachers Group
Consumer Home Forum

5. (c) OTHER PUBLIC SERVICE: (Continued)

University of Massachusetts Alumni Banquet
Shade Tree Dutch Elm Disease Conference
Massachusetts Landscape Association
Country Garden Club of Weston
West Roxbury Garden Club
Chrysanthemum School
Watertown Garden Club
Flower Arrangement Classes

Number of Meetings - 213
Total Attendance - 10,870

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6. MAJOR ACCOMPLISHMENTS:

Air Pollution Effects on Floriculture Crops

In monitoring ambient air we have recorded extremely high carbon dioxide content. Our first experience with this high content was on November 30, 1962, at which time we had readings of 500 ppm; 200 ppm above normal. Correlated with this high concentration we had several reports of heavy drop of snapdragon florets. The presence of high CO_2 levels since that time have been consistently correlated with air pollution damage. Last December 13, 1964, we experienced one of the highest and longest periods of high concentrations of carbon dioxide which was accompanied with field damage to snapdragons.

It is probable that associated with high carbon dioxide levels we accumulate pollutants such as ethylene and other photochemical oxidants. To further indicate the presence of pollutants, particularly O_3, we have initiated in cooperation with the Public Health Service and the U.S.D.A. a program of O_3 monitoring throughout the Boston area using sensitive tobacco strains. We desire to determine when and for how long O_3 fumigations occur in the area.

As early as May 17, 1965, two specific varieties of tobacco received slight fumigations of ozone and on May 18th certain varieties of petunias were fumigated, apparently with one of the aldehydes. Thus, we now have a program of pollution early warning (PEW) established with the growers and county agents to report to us any floret drop or other damage that can be correlated with pollutants.

It is expected that with new techniques we will be able to understand the problems arising from polluted environments. The extent of air pollution is difficult to evaluate, but preliminary figures indicate an approximate loss to the Commonwealth of 15 to 25 million dollars each year.

--- Norman W. Butterfield

Epidemeology of Avian Necrosis

The causes of death among wild birds is unknown. In general, pesticides and pathogens are implicated. In order to obtain definitive information a cooperative study with the Massachusetts Audubon Society was initiated. The first apparent problem of significance was Salmonellosis. There is a general lack of documentary evidence on the incidence and distribution of Salmonellae and other pathogenic agents in the free-flying wild birds population in the United States. A total of 12 natural outbreaks of Salmonella infection was identified in wild avian species during a one-year survey.

During this time examinations of 187 specimens in 100 wild bird consignments were made. A total of 29 avian species was represented in this study.

The frequency of S. typhimurium isolates recovered from cowbirds (Molothrus ater) was high. The time and frequency of these outbreaks present a challenging question as to the source of the disease in its natural habitat. Cowbirds do not ordinarily remain in New England during the late fall and winter months. Disturbances in the environment, such

as adverse climatic conditions or inadequate feed could be important stress factors in provoking natural outbreaks of Salmonella infection. Our findings suggest that cowbirds may harbor a high incidence of Salmonellae and this demonstration merits further investigation.

The exact pathways of transmission from one community to another is unknown. The geographic distance between outbreaks varied from 10 to 100 miles. The sequence through which the infection is perpetuated remains unexplained. The findings of this survey indicate that wild birds are a potential source of Salmonellae to commercial poultry flocks. There is a need for a model system to monitor the incidence of Salmonellae and other pathogens in wild bird populations.

--- George P. Faddoul
--- Gordon W. Fellows

Sub-Lethal Effects of Pesticides on Embryonic Development in White Leghorn Chickens

The significance of pesticides on populations of wild birds is not known although reproductive failures have been reported and attributed to DDT. Forced feeding studies of DDT in chicks has demonstrated transovarial effects.

Current work is concerned with the relationship between the effect of transovarian deposition of DDT and the yolk injection of DDT. Similar ranges of DDT are being injected into the yolk to compare the results with DDT deposited in eggs by females on 100 ppm DDT diets.

To date the preliminary work on solvent selection has been completed. The solvent of choice is corn oil, which shows no significant effect on embryo development at 0.1 ml yolk sac injection per egg.

Due to the lack of incubator space, the main toxicological studies are delayed and await the installation of additional incubator equipment.

--- Gordon W. Fellows
--- William D. McEnroe

The Influence of Rhizosphere Microflora on the Transformation of Insecticides by Plants

Increasing insect tolerance to the chlorinated hydrocarbon insecticides and growing recognition of the intractability of these materials to biological degradation have led to a growing interest in and application of a variety of organophosphorus compounds against soil inhabiting insects. Work was, therefore, initiated with diazinon, a representative organophosphorus insecticide. Few studies with diazinon have proceeded beyond the determination of residual activity in the soil. Little attention has been paid to the possible impact on the soil microflora and determining whether the rhizosphere microflora, that group of microorganisms selected by the influence of actively growing plant roots, affect plants in their transformation of insecticides either by acting on the metabolism of the plant or by the degradation of root-excreted pesticides.

No diazinon was found in leaf or stem tissue of greenhouse-grown bean plants seven days after application to the soil or by direct swabbing or atomizing onto the plant leaf, at levels ranging from 0.3 to 3.0 lbs. a.i. per acre. Similarly, no diazinon was found the beans of plants harvested 13 weeks after application. Parallel results were obtained with plants grown under conditions of sterility which prevented the development of a root-associated or soil microbial population. The rhizosphere microflora, therefore, does not appear to be a factor in the initial metabolism of diazinon by the bean plant.

Applications of diazinon either to the soil or directly to the plant were found, however, to exert an influence both on the numbers and kinds of rhizosphere and soil microorganisms. The appearance of similar selected populations some time after the disappearance of either leaf or soil-applied diazinon suggests a response to an intermediate of a degradative pathway common to both the bean plant and the soil microflora. Studies with C^{14}-labeled diazinon confirmed the translocation of the insecticide from the point of application on the leaf to its excretion in root exudates, and the microorganism most representative of the diazinon-selected population was found both to incorporate the isotopelabeled material and to metabolize it to $C^{14}O_2$.

Organisms stimulated by the presence of diazinon could utilize this compound only slowly when it was provided in aqueous emulsion as a sole source of carbon. Yeast extract enhanced carbon assimilation. None of the isolates could utilize diazinon as a sole source of phosphorus, nitrogen, or sulfur when present in aqueous suspension. On the basis of its slow availability as a carbon source it is postulated that diazinon does not exert its selective effect directly as a carbonaceous substrate.

Current and future work includes the elaboration of the intermediates in the degradation pathway for which a tentative schema has already been established.

--- Haim B. Gunner

Biological and Chemical Studies of Mite Resistance - Circadian Rhythmicity in the Two-Spotted Spider Mite

It is well known that animals and plants are organized in space and influenced by their physical environment. Using the two-spotted spider mite as a model, it has been possible to demonstrate that these animals are also organized in time and this temporal organization moderated by the physical environment. Mortality responses to neurotoxic agents demonstrate a sizable change from dawn to dusk in a repeatable 24-hour cycle. It is apparent that these circadian cycles are present in the larger context of lunar cycles since responses to neurotoxic agents vary as much as 80% in correlation with the lunar day. This work demonstrates the complex interrelationship between animals, the physical environment and biological contaminants in the physical environment.

--- J. Dmoch
--- William D. McEnroe
--- John A. Naegele

Sulfaquinoxaline Intolerance

The pathogenic stress introduced by infections of microorganisms are generally prevented and/or cured by the administration of chemical agents of specific toxicity to the pathogen. Studies on the intolerance of sulfaquinoxaline in chickens was initiated in November at the Berkley Research Farm. This problem concerns the toxic manifestations and needless deaths due to the administration of sulfaquinoxaline in chicken flocks. A lack of adequate knowledge of the early danger signs of acute or chronic toxicity has played a major role in producing some serious health problems in commercial flocks. About five years ago we alerted the feed manufacturers in this area to the danger involved in the administration of the preventive level of sulfaquinoxaline on a continuous basis in young chicken flocks. It was observed that in those flocks which had not previously received sulfaquinoxaline as a coccidiostat in the starter mash, a percentage of the flock population would exhibit an intolerance to low level medication later in the growing period when the drug was first used. Experimental trials were attempted to confirm our clinical observations. Confirmatory results have been obtained from a series of three trials.

--- George P. Faddoul
--- Gordon W. Fellows

Coadaption and Fitness in Selected Acarine Populations

One of the most important specific pollution incited population responses is resistance to the selecting chemical. This resistance has both practical and theoretical significance. In brief, populations change while becoming resistant. The nature of this change is involved in coadaption and fitness.

Therefore, the coadaptive process was followed in its final stages in the Leverkusen R. Strain from generation F250 through F300. The coadaptive process has been demonstrated (at a constant level of female resistance) by the following results.

1) The final stability of the female D.M. line from full reversion through partial reversion to final stability under relaxed selection.

2) The increase in make D.M. response line from its lagging position to a position adjacent to the female line, characteristic of an integrated population.

3) Improvement of fitness as measured by the increase in egg hatch back to the initial integrated state.

The requirement of 300 generations for the coadaptive process vs. 30 generations for resistance development is due to the loss of genetic variability in the selection process, as the coadaptive rate is a function of this variability.

The process of swamping a resistant strain with a sensitive strain was also followed both with and without selection pressure.

Without selection pressure a single dominant factor (which accounted for the resistance in the strain) showed a typical Hardy-Weinberg equilibrium, indicating little difference in selective advantage for this alleic pair. The biotic potential of the strains showed an interaction in the mass crossing upon the final equilibrium level.

Under selection pressure a high level of resistance was reached in 30 generations. All measures showed the coadaptive process kept pace with the selective process. The high degree of integration throughout the selective process can be accounted for by the large amount of genetic variability available to the strain.

This work shows that the population structure rather than resistance per se controls the biotic potential of the resistance strain.

--- William D. McEnroe
J. Kot
John A. Naegele

Isolation of Algae and Fungi for Protein Production

There is a general need for new sources of protein for food and feed that can be produced in controlled, non-polluted environments. In this study, we are exploring a portion of the plant kingdom in a search for protein sources that are not competitive with existing sources. Numerous species of fungi (mushrooms, yeasts) and algae (Nostoc) are eaten by humans, while lichens are consumed by herbivores.

Twelve different isolates of Nostoc are in culture, along with closely related genera, other blue-green algae and other algae. These algae are cultured in 5-liter battery jars in a 50-gallon controlled temperature bath, externally illuminated by fluorescent lamps. They are also cultured in 12-liter, wide-mouth 'bottles' which are internally illuminated by air-and-water cooled 500 watt quartz-iodine tungsten lamps. The algae have been concentrated by centrifugation and processed by vacuum-freeze drying and grinding or heating to form stable products.

A flock of Japanese quail is being acclimated for propagation as test animals. A chromatography laboratory is being set up for amino acid analyses.

Approximately 70 cultures of algae on inorganic media are supporting growth of fungi. Media containing processed algae as the sole organic substrate have been prepared for fungus culture.

--- G. Hemerick

7. SPECIAL PROGRAMS AND ACTIVITIES:

Pesticide Education Program

Educational offerings related to the pesticide problem in Massachusetts have two distinct audiences; a large group of uninformed users, which in our focus we define as the suburbanite, and a small group of well-informed professionals whose prospective and technical competence in specific areas needs broadening. In 1965 we have initiated educational programs directed at both groups.

Pesticide Education Program for the Suburbanite

The Pesticide Education Program has been initiated. The principal educational tool, the Pesticide Safety Guide, is being widely distributed through direct mail and through newspapers. One hundred thousand of these guides have been printed.

The Governor has proclaimed June as Safe Gardening Month, thus providing us with a context in which to operate. Counter cards are being distributed to points of sale illustrating safe storage of pesticides. Windshield stickers promoting June as Safe Gardening Month have been printed and are being distributed. Approximately 12 TV shorts have been prepared and will be aired in support of promoting pesticide safety. In addition, numerous radio tapes, station break announcements, TV station educational slides and spot announcements have been prepared and distributed to 200 newspapers, 44 radio stations and 7 TV stations in the State of Massachusetts.

Pesticide Education Programs for the Professionals

Gas Chromatography Pesticide Workshop - The Gas Chromatography Workshop, designed to provide in-depth training to professionals was attended by 52 professionals from 8 different states. Typical of the professional competence represented are analytical chemists, plant physiologists, aquatic biologists, toxicologists, biochemists, chief chemists, director of research, resident physician, and laboratory chief.

Experimental Taxonomy and Resistance - This symposium planned for mid-June is in keeping with in-depth training and the promotion of communication between professionals. The program and aims are self-explanatory.

8. FUTURE PLANS AND NEEDS:

The future emphasis of the Department of Environmental Sciences will focus our attention on the problems of the urban state, particularly those biological problems attendant upon urbanization. This emphasis is in keeping with the increased attention focused upon these concerns at the national level as indicated by the current Presidential plan to establish the "Environmental Sciences Service Administration" now pending Congressional approval.

The pollution generally associated with increased urbanization influences the biology of the suburban area in several ways. It regulates the growth of plants and animals, it modifies their normal ecological niche so that populations are placed under continual stress and forced to adjust; and it provides a selection force which changes the composition of the population. Our research programs coincide with these themes and are cast with model systems designed to maintain a constant contact with the needs and potential problems of the citizens of the Commonwealth. We understand this to be our role in a state-supported University.

At the present time the vast majority of our projects are severely limited by lack of space and equipment. Some of our projects such as our breeding

trials with annuals, or our vegetable breeding trials are not severely limited by lack of space and equipment. Some of our projects such as our breeding trials with annuals, or our vegetable breeding trials are not severely limited since we do have 65 acres of land on which to grow plants. However, the projects which require a contemporary biological focus are inadequately supported with equipment and facilities. While we can conduct superficial work on all of these projects, equipment and adequate space are required to achieve in-depth programming necessary to unravel the mysteries of the subject matter on which we are working.

In particular, let me point to several programs that are severely limited. One of the principal problems facing Massachusetts at the present time is the problem of air pollution. We estimate the loss due to air pollution in Massachusetts to be somewhere around 15 to 25 million dollars a year. Our understanding of air pollution is superficial since in Massachusetts we do not know the principal pollutants that are attacking the vegetation that surrounds us. In order to obtain a clear picture of the problem it is essential to have controlled environment areas in which to grow plant material. We do not have growth chambers in which we can do this. Nor do we have adequate greenhouse facilities to rear large plant materials to study air pollution effects.

The whole area of physiology remains remote to us and consequently the depth to which we can explore pollution effects is limited. We need special purpose equipment such as amino acid analyzer, infrared spectrophotometer, a U.V. visible spectrophotometer, a D.U. spectrophotometer and infrared CO_2 analyzer and recorder as well as ancillary equipment such as centrifuges, incubators, respirometers, chromatography rooms, radioactive synthesis and tracer labs, dark room, graphics shop, glass shop, instrument room, carpenter shop, paper chromatography room, animal rearing room, radioactive tracer equipment, particularly a liquid scintillation counter which is essential for contemporary plant and animal physiology which is a basic necessity in understanding the effects of air pollutants on plants and animals.

Another area of concern in which we are severely limited because of lack of equipment is the area of the influence of microbiometeorology on the development of plant disease. We do not know what function the immediate environment of the plant and the plant pathogen play on each other in the development of plant disease and we do not have adequate control facilities or equipment to monitor and investigate this area. Consequently, although we have staff competent to deal with this area, we do not have facilities to permit us to do it. The optical equipment, growth chambers and greenhouse facilities are required.

The work on the physiology of microbes and the influence that plants have on soil microorganisms is currently limited by lack of equipment. Contemporary biology requires the biochemical apparatus. Since we do not have the contemporary equipment necessary for a molecular level program, the possibility of providing definite answers to the problems of pesticide contamination of soil, microbial transformations in the soil, and the differential of toxicity of various microorganisms and its relationship to their biochemistry is denied us. In addition to this, the whole question of pesticides in our environment remains somewhat remote because of a lack of adequate facilities for the rearing of test animals and the development of adequate model systems.

Equipment and space are prime requisites, but equally significant to progress in biological research and teaching is an adequate library. Our Department does not have an adequate library.

Absolutely essential to the whole program, however, is a graduate program in Environmental Biology. Specifically, the following programming possibilities would be open to us with adequate space, equipment and graduate program.

1. Plant phytotoxicity under controlled environment.

2. Biochemical and biophysical aspects of the physiology of plants and animals.

3. Environmental effects on plant and animal pathogen systems.

4. Biochemical and biophysical aspects of water pollution.

5. Histological-pathological aspects of pollution in plant tissues.

6. Wide spectrum pesticide and pollution chemical analysis.

7. The establishment of a visiting investigation program for special problems with Federal grant support.

8. The establishment of Public Health supported training programs.

9. Cooperative programs and projects with Public Health in both research and training.

10. The establishment of a broad base invertebrate resistance program focused on stress and population structure.

It is my judgment that the key to progress and to the solution of the problems of urbanization is dependent upon quality in research as well as education. Quality, however, in today's scientific market is dependent upon outstanding personnel. Outstanding personnel are only obtained when our institution can provide for them an adequate opportunity for the development of their talents which means adequate working space, graduate students, and contemporary equipment and library facilities that will provide answers to complicated problems at the biochemical, biophysical, as well as the total organismic level.

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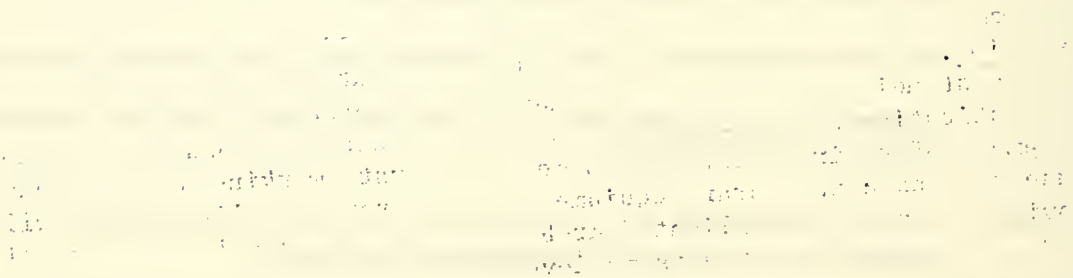

FEED, FERTILIZER, SEED,
DAIRY LAW

Annual Report 1965
Feed, Fertilizer, Dairy, Seed Laws

In the March 1965 copy of the Food and Drug Review issued by the Federal Food and Drug Administration appears this article: "Government researchers have started feeding aflatoxin-contaminated feeds to food animals to find out whether residues of the carcinogenic substances turn up in meat, milk and eggs.--- A product of a common mold which can attack many crops, aflatoxins are among the most potent carcinogens yet discovered. Poultry and swine are particularly vulnerable. Whether the substances are carcinogenic to humans hasn't been answered."

Another article by Dr. J. E. Porter, Veterinary Medical Officer, Division of Veterinary Medicine, Bureau of Medicine, Food and Drug Administration states, "Salmonella organisms may contaminate animal feedstuffs and result in a chain of infection leading to man. This is one of the most significant problems facing feed manufacturers and farmers today." It may be added, "also feed and food control officials".

During the past year this Control Service has assayed many feed samples for pesticides. Our assays, along with those of the Boston District of the Federal Food and Drug Administration, resulted in a Federal ban on the importation of beet pulp from Manitoba and Alberta. The beet pulp contained the pesticide Heptachlor and its epoxide. If fed to cows the pesticide appears in the milk. Pesticides in significant amounts were found in some other feeds.

The required work under the provisions of the feed, fertilizer, dairy, and seed laws was done.

Times have changed! Progressing from the simple determinations for protein, fat, and fiber it now is necessary to assay feeds for vitamins, drugs, trace minerals, amino acids, pesticide residues, etc.

During past years we have been confronted at times by problems involving the refusal of animals to eat certain lots of feed, or alleged deterioration of health after eating the feed. The equipment and methods at our command often have been inadequate to provide satisfactory answers. It is possible that the answers would have been found in the examination of feeds for Salmonella organisms, aflatoxins, pesticide residues, or some other factors it may be possible to identify and measure only by instruments more sophisticated than those we now have.

Our professional staff members are keeping abreast of developments in new methods for the testing of feeds, fertilizers, and seeds so far as the equipment we now have will allow them to do so. They play prominent roles in the affairs of the Associations of the American Feed and Fertilizer Control Officials, Official Agricultural Chemists, Feed Microscopists, and Seed Analysts. Their work is considered as excellent by fellow workers in their respective fields in other states.

The gas chromatograph and atomic absorption spectrophotometer acquired recently already have enabled us to perform assays which would have been either impossible or very difficult and time consuming to do by other means. By the use of these instruments the work capacity of the chemists making pesticide residue assays, for example, has been increased many fold. It does not seem to make sense for professional members earning 1965 salaries to be using outmoded 1940 equipment.

If we are to continue to keep abreast of new developments as they come along and to participate in the work of devising new and better techniques for the testing of feeds, fertilizers and seeds, as well as cooperate with other departments in their projects whenever possible, we need the equipment and alterations to existing facilities, listed in our budget requests.

Only by having these modern tools of science can we expect to fulfil to the fullest extent possible the legal requirements of the laws under which we operate.

By so doing we can help to insure the better health of livestock and poultry producing the meat, milk, and eggs consumed by the citizens of our Commonwealth. We also can aid more effectively in the production and sale of better fertilizers and seeds so that the farmers' harvests will be more bountiful, and everyone's environment, wherever possible, will be enriched because of more beautiful flowers, greener lawns, parks, and golf courses.

John W. Kuzmeski
Professor in Charge

JWK:rmk

ANNUAL REPORT

DEPARTMENT OF FOOD SCIENCE AND TECHNOLOGY

July 1, 1964 to June 30, 1965

5. Faculty Publications and Other Professional Activities

(a) Technical and Scientific Papers

1. Microbiological and public health aspects of prepared frozen foods. A. T. Miller, H. M. El-Bisi, and F. M. Sawyer. Mass. Agr. Expt. Sta. Bul. No. 548, November 1964. 60 pp.

2. Delta-caprolactone in heated milk fat. T. P. Parliment, W. W. Nawar and I. S. Fagerson. J. Dairy Science, May 1965.

3. Collection of gas chromatographic fractions for infra red analysis. R. A. Edwards and I. S. Fagerson. Anal. Chemistry (in press).

4. Quantitative aspects of direct headspace gas chromatographic measurement of food volatiles. W. W. Nawar. Food Technol. (in press).

5. Application of the acetylcholinesterase inhibition method for detecting organophosphate residues and related compounds in milk. J. E. Beam and D. J. Hankinson. J. Dairy Science 47:1297-1305 (1964).

6. Implications and considerations for on premise freezing. Hospitals. K. M. Hayes. J. Am. Hospital Assoc. (in press).

7. New cranberry varieties for processed products. F. B. Chandler, I. Demoranville and K. M. Hayes. Cranberries Magazine. (in press).

8. Use of nisin in processing food products. B. Heinemann, L. Voris and C. R. Stumbo. Food Technology, 19:160-164 (1965).

9. Estimation of the mass average temperature during heating and cooling of conduction-heating products in cylindrical cans. Food Technology 18:1950-1953 (1964).

10. A procedure for assaying residual nisin in food products. C. R. Stumbo, L. Voris, B. Skggs, and B. Heineman. J. Food Science 29: 859-361 (1964).

11. Food preservation-heat processing. C. R. Stumbo. Food Technology, 18:127-129 (1964).

12. New parameters for process calculation. C. R. Stumbo and R. E. Longley. Food Technology. (in press).

13. The binding of phosphate, pyrophosphate, and nucleotides to the structural protein of beef heart mitochondria. H. O. Hultin and S. H. Richardson. Arch. Biochem. Biophys., 105:288-296 (1964).

14. Interactions of mitochondrial structural protein with phospholipids. H. O. Hultin, S. H. Richardson and S. Fleischer. Arch. Biochem. Biophys. 105:254-260 (1964).

15. Association of the glycolytic enzymes with the membrane of the red blood corpuscle. H. O. Hultin, D. E. Green, E. Murer, S. H. Richardson, B. Salmon, and G. P. Brierley. J. Biol. Chem. (in press).

16. Structure and function of the erythrocyte membrane. H. O. Hultin, S. H. Richardson, and D. E. Green. Proc. Natl. Acad. Sci. U. S. (in press).

17. Pectin methyl esterase in the ripening banana. H. O. Hultin and A. S. Levine. J. Food Science. (in press).

18. Canned marine food and related technical problems in Japan. E. Tanikawa. Man. Agr. Expt. Sta. Bul. 544 (1964). 36 pp.

19. Packaging and storage of prepeeled turnips. B. Alexander and F. J. Francis. Proc. Am. Soc. Hort. Sci. 84:513-518 (1964).

20. A method for gas chromatographic respiration studies and results with prepeeled turnips. B. Alexander and F. J. Francis. Proc. Am. Soc. Hort. Sci. 84:519-526 (1964).

21. Cranberry color measurement. F. J. Francis. Proc. Am. Soc. Hort. Sci. 85:312-317 (1964).

22. Packaging and storage of prepeeled rutabagas. B. Alexander and F. J. Francis. Proc. Am. Soc. Hort. Sci. 85:457-464 (1964).

23. Alcohol content as an index of quality for prepeeled potatoes. G. W. Fuller, F. J. Francis and H. M. El-Bisi. Am. Potato J. 41:279-292 (1964).

24. Kinetics of thermal degradation of chlorophyll in spinach puree. S. M. Gupte, H. M. El-Bisi, and F. J. Francis. J. Food Science 29:379-382 (1964).

25. Composition of the distillate in the alcohol test for quality of prepeeled potatoes. R. de la Mar and F. J. Francis. Proc. Am. Soc. Hort. Sci. (in press).

26. Accuracy of plastic beads for milk density measurement. D. J. Hankinson and S. N. Gaunt. J. Dairy Science (in press).

27. Watermelon color measurement with the Agtron. F. J. Francis. Proc. Am. Soc. Hort. Sci. (in press).

28. Extraction and fractionation of some proteins of the banana, Musa sapientum. R. E. Landers and H. O. Hultin. J. Agr. and Food Chem. (in press).

29. The occurrence of proteolytic activity in the pulp of the banana. D. M. Bright, R. E. Landers and H. O. Hultin. J. Food Science (in press).

30. Optimum storage conditions for butternut squash. F. J. Francis and C. L. Thomson. Proc. Am. Soc. Hort. Sci. (in press).

31. Studies of the lipids of Arthrobacter globiformis 616. I. The fatty acid composition. R. W. Walker and I. S. Fagerson. Canadian J. Microbiology 11:229 (1965).

32. 1. Cooking by infrared; 2. Cooking by microwave; 3. Thoughts on poultry. D. E. Lundberg. Canadian Hotel Review and Restaurant. May 1965.

33. Cranberry anthocyanins. C. Zapsalis and F. J. Francis. J. Food Science (in press).

34. Production of quality milk. D. A. Evans. The Science of Dairy Farming 12 Ed. H. K. Webster Company, Lawrence, Mass. pp. 161-169 (1964).

35. Fatty acids of Streptococcus faecuim. R. W. Walker, I. S. Fagerson, E. L. West. J. Microbiology (in press).

36. Training resort personnel. D. E. Lundberg. Resort Magazine, June (1965).

37. Experiences encountered in the antomation cleaning of a UHT plate heat exchanges. D. A. Evans. J. Dairy Science 43:1458 (1964).

(b) Extension Continuing Publications

1. Freezing foods at home (Revision). K. M. Hayes and W. B. Esselen. Coop. Extn. Service Leaflet #257. Univ. of Mass. 32 pp. (1964).

2. A mechanical harvesting and handling system for processing apples. Edited by K. M. Hayes. Technical Information Series #2. 12 pp. (1965).

3. Adapting Extension Programs to Meet New Problems and Needs. Publication No. 425, Edited by Charles E. Eshbach, Cooperative Extension Service, University of Massachusetts, 36 pp., (1964).

4. Using Financial Statements in Food Service Establishments. Robert F. Lukowski and Charles E. Eshbach, Cooperative Extension Service, University of Massachusetts, 20 pp., (1964).

5. Care and Handling of Prepared Frozen Foods, Food Management Leaflet No. 9, A. T. Miller, H. M. El-Bisi, F. M. Sawyer, and C. E. Eshbach, Cooperative Extension Service, University of Massachusetts, 12 pp. (1965).

6. Report of Regional Food Service Educational Program, Food Management Manual No. 10, Robert F. Lukowski and Charles E. Eshbach, Cooperative Extension Service, University of Massachusetts, 24 pp. (1965).

7. Purchasing Food for Food Service Establishments, Food Management Leaflet No. 10, Charles E. Eshbach and Albert L. Wrisley, Cooperative Extension Service, University of Massachusetts, 24 pp. (1965).

8. Information about the County Extension Service, series of 10 publications, Charles E. Eshbach, Cooperative Extension Service, University. Range from 4 to 10 pages, multilithed February, March, April and May, 1965.

9. Food Service Management, issued 10 times per year, Charles E. Eshbach, Cooperative Extension Service, University of Massachusetts. Ranges 8 to 12 pages per issue, multilithed.

10. Extension Faces the Future, Charles E. Eshbach, Cooperative Extension Service, University of Massachusetts, 24 pages, (in press 1965).

11. Purchasing Fresh Fruits and Vegetables for the Food Service Establishment, Food Management Leaflet No. 14, Charles E. Eshbach, Cooperative Extension Service, University of Massachusetts, 16 pp., (in press 1965).

12. Purchasing Meats for Food Service Establishments, Food Management Leaflet No. 13, Albert L. Wrisley and Charles E. Eshbach, Cooperative Extension Service, University of Massachusetts, 16 pages, (in press, 1965).

(c) Books

1. "The Management of People in Hotels, Restaurants and Clubs". D. E. Lundberg and J. Armatar. Brown Company, Dubu ue, Iowa. 231 pp. (1964).

2. "Thermobacteriology in Food Processing". C. R. Stumbo. Academic Press (in press, 1965).

(d) Professional Activities

1. All of the staff represented the department and participated in various national and regional professional society meetings during the past year and technical papers were presented at several meetings. Dr. W. B. Esselen served as chairman of the Northeast Section, Institute of Food Technologists (IFT) and as chairman and member, respectively, of the Scientific Lectureship Committee and Council Policy Committee of the IFT. Also in the Northeast Section IFT Dr. W. M. Hunting served as Section Representative of the International Technical Assistance Subcommittee and Professor K. M. Hayes was elected treasurer.

2. Dr. F. J. Francis is spending a six month sabbatical leave engaged in research on anthocyanin pigments at the John Innes Institute in England.

3. Professor E. M. Buck was awarded an NSF Faculty Fellowship and has been on leave this year working toward his Ph.D. degree in Food Science and Technology. Mr. J. G. Sample from the University of Minnesota is employed as a replacement for Professor Buck this year.

4. During the period November 11, 1964 through February 22, 1965 Dr. D. J. Hankinson served as Curriculum Advisor under the University of Massachusetts - A.I.D. Contract with the Malawi Government in Africa. Recommendations were made for a program of study for a new Bunda College of Agriculture.

5. Dr. C. R. Stumbo was appointed as a member of the National Academy of Science - National Research Council Advisory Board on Military Personnel Supplies Radiation Advisory Committee to the Armed Forces.

6. Dr. I. S. Fagerson served as chairman of the UMass. Chapter of Sigma Xi and Dr. W. B. Esselen as chairman of the UMass. Chapter of Phi Kappa Phi.

7. During August 1964 Dr. I. S. Fagerson presented a two week training session on flavor chemistry and food quality evaluation at the Food Technology Laboratory, Puerto Rico Agr. Expt. Station, Rio Piedras. Dr. W. B. Esselen worked with this same group on food technology problems for one week in March 1965.

8. Dr. D. E. Lundberg gave a series of lectures on the subject of Personnel Management to regional seminars of the Group Managers Association of America at Cornell University, Portland, Oregon, and Washington, D. C. and at the Armed Forces Mess Managers Conference, San Diego, California.

9. Professor C. E. Eshbach served as a Trustee of the New England Economic Education Council and as a participant in the Michigan State University Food Service Quality Control Symposium (April, 1965).

10. Dr. H. O. Hultin, by invitation, lectured on his enzyme research at the Research Center of the United Fruit Company, Boston, Mass. (December 1964).

11. Professor K. M. Hayes was appointed Staff Scientist, Boston Dispensary in connection with a cooperative project being carried on with that organization.

6. Major Accomplishments

a. The outstanding accomplishment or action of the year was the completion of construction of the addition to Chenoweth Laboratory to the point where the staff and graduate students could start moving in the middle of May. Several staff members will sleep better at night now that a considerable amount of valuable research equipment has been moved out of the fire trap -- Hatch Laboratory. Hopefully the renovation of the old Chenoweth Laboratory will be completed by the end of the summer at which time most of the department will be housed under one roof, for the first time in many years. With the completion of this project the department will have excellent facilities for instruction, graduate training, research and extension continuing education. A particular word of thanks is due Dr. A. S. Levine for his vigorous interest and efforts as new building coordinator.

b. On September 1, 1964 Dr. Robert E. Levin (University of California) joined our staff as assistant professor in the food microbiology area.

c. An architect has been appointed and plans are being made, in cooperation with the Department of Veterinary and Animal Science, for the renovation and remodeling of Flint Laboratory. It is hoped that sufficient "old building renovation funds" will be available for the renovation of the basement and first and second floors. Completion of this project will provide excellent and badly needed instruction research and extension continuing education facilities in meat technology and improved and modern facilities for dairy technology.

d. Under the direction of Dr. H. O. Hultin an active research program on the post-harvest and post-mortern changes in plant and animal tissue has been established. This is supported in part by a research grant from the U. S. Public Health Service.

e. With the joint support of the U. S. Atomic Energy Commission and the U. S. Public Health Service Dr. W. W. Nawar has initiated a department research program on the effects of ionizing radiation on food lipids.

f. Dr. C. R. Stumbo has initiated a research program on factors influencing the heat resistance of Clostridium botulinum spores under contract with the U. S. Bureau of Commercial Fisheries.

g. Research on thermal sensitivity of yeasts and lactic acid bacteria and on the use of bacteriophage for the identification of fish spoilage psychrophilic bacteria has been introduced by Dr. R. E. Levin.

h. Professor K. M. Hayes has initiated a new series of publications on specific subjects for a selected audience.

i. The food service industry has continued to give strong support to the Restaurant and Hotel Management Program which is under the direction of Dr. D. E. Lundberg. In support of the new building the Garland Range Company has presented us with about $6,000 worth of equipment for the Seiler Kitchen and Howard Johnson Company is providing teakwood paneling, wall to wall carpet, lights and furniture to seat 22 persons for the Restaurant and Hotel Management dining room. The Carling Brewing Company has announced a $5,000 annual grant to be used for tuition grants for Restaurant and Hotel Management students. In addition the industry is lending support to the development of a Hotel, Food and Culinary Arts Library to be established in the department.

j. The development of a strong Extension Continuing Education program has become a major department activity this year. Several projects have been or are being carried out and planned as descrobed in following Section 7.

k. Professor K. M. Hayes conducted a cooperative study with staff members of the Boston Dispensary (a unit of the Tufts-New England Medical Center) on the role and feasibility of utilizing frozen dietetic meals and microwave heating for the feeding of hospital bound patients requiring special diets. The program culminated in carrying out a four day feeding test at the Boston Dispensary using microwave heating. Results indicate that this type of meal can fulfill a definite need as well as lowering costs and having good patient acceptability. Work is continuing along same concepts, using commercially produced entrees.

l. Through conferences and applied research carried out by Professor K. M. Hayes the Table Talk Pie Company, Worcester, Massachusetts adopted the use of firming agents to improve quality of baked pies. Prior research done in the department served as the basis for this industry adoption.

m. Three students in the department were recipients of nationally awarded scholarships of the Institute of Food Technologists. Miss Joanne Crooker received a $300 freshmen scholarship and graduate scholarships were awarded to Fergus M. Clydesdale ($4,000) and Gabor Puski ($1,000). Michael Brodnitz was awarded a National Institutes of Health predoctoral scholarship.

n. Dr. D. J. Hankinson has initiated a research program in "Fluid Dynamics of Circulation Cleaning" with support from a U. S. Public Health Service Grant and in cooperation with Dr. C. E. Carver, Jr. of Civil Engineering.

7. Special Projects or Programs

a. Currently, the Extension program in Food Science and Technology is emphasizing work in quality control and in Continuing Education. Plans are being formulated to present a series of seminars on technical subjects for the food industry, utilizing staff members as leaders.

b. A major project of Dr. D. E. Lundberg, Professor C. E. Eshbach and staff has been the further development of the Extension continuing education program in the food management area, since its start a few years ago. The expansion of scope of the educational program, the greatly increased recognition of the University as a source of educational assistance to this industry, and the greatly increased support for the work here, have been indications of the success of this work.

Highlight of the current year has been an 11-session Extension continuing education in food purchasing, held Monday evenings, March 1 to May 17th at the Waltham Field Station. These two-hour sessions, 7:00 to 9:00 p.m., have explored in depth the methods, procedures, problems, and new developments in the purchase of food for food service operations.

The series was originally set up for 45, but demands for admission were so great that 64 people were admitted, and a waiting list has been established for the next series.

The teaching has featured a combination of staff members of the University, leaders from industry, and some government experts. The practices being followed by industry, theory, subject matter information, and experiences of the students have been utilized in directing the instruction to problem areas.

Preparations are being made to offer two Restaurant and Hotel Management courses via tele-lecture next fall. The courses would be offered in Springfield, Boston, and Essex County simultaneously by use of telephone.

c. Through the efforts of Professors Hankinson, Potter and Evans a U. S. Public Health Service Grant has been negotiated in support of a five day in-service training course for milk sanitarians for purposes of providing information on the newly revised Pasteurized Milk Ordinance as well as basic information on milk sanitation. This training course is considered as being part of our Extension Continuing Education Program.

d. During the year, a study was made of the Worcester School Lunch system, as a result of a request from the Mayor of Worcester to President John W. Lederle of the University. Mr. Lukowski and Mr. Eshbach completed the study and a report and recommendations have been submitted to the Mayor of Worcester and the Worcester School Committee.

A letter dated April 7, 1965 from Mayor Paul Mullaney expressed appreciation of himself and the School Committee for the assistance provided. He mentioned that the identification of problems and the recommendations pertaining to them would be especially helpful, and indicated that further discussions of the problems of the Worcester School lunch program by members of the School Committee and Mr. Lukowski and Mr. Eshbach will be requested.

This is an example of assistance frequently provided by the Department to municipalities and other state departments.

e. A highlight of the year was the success of the 12th annual Food Service Seminar, held at the University on January 27, 28, and 29, 1965, under the co-sponsorship of the Massachusetts Food Service Educational Council representing the industry, and the University of Massachusetts.

Charles E. Eshbach served on the committee which planned and held this seminar, as a representative of the University. Due in large measure to University contribution to the planning and program development, this seminar established a new attendance record, and offered a program which brought many expressions of value from people from the industry who attended.

The program was keyed to new developments in the food service industry and its developing needs and changes. Frozen foods and the problems associated with use of frozen foods in food service establishments received special emphasis.

f. Considerable effort has been spent on a project to develop a means to implement a research, continuing education and instruction program in the area of marine food science and technology to be supported on a matching fund basis (State - 25% and Federal - 75% under PL 88-309). Thanks are due President John W. Lederle for his cooperation and interest in this area from the standpoint of State support. If Federal funds are appropriated and if our proposed program is approved by the Massachusetts Department of Natural Resources and the U. S. Bureau of Commercial Fisheries it should be possible to initiate it in the fall of 1965.

8. Future Plans and Needs

With its new facilities the department is equipped physically for a marked expansion in undergraduate and graduate instruction, research and continuing education. For the coming year a significant increase in the graduate and Restaurant and Hotel Management is anticipated with some increase in undergraduate Food Science and Technology. It is recommended that steps proceed as rapidly as possible for the renovation of Flint Laboratory in order to provide much needed facilities for meat technology for both instruction and continuing education. Likewise improved dairy technology facilities are required for instruction, research and continuing education. The nature of the instruction and research being carried on now and being planned for the future should benefit the food industry, utilization of agricultural commodities, and the consumer not only in Massachusetts but throughout the country and world. The proposed marine food science program should be of real benefit to the fishing industry of Massachusetts and New England.

In order to make the most of these new facilities the department staff should be increased, particularly at the junior professional and sub-professional levels. Considerable more sub-professional support is required just to maintain the new pilot plant, laboratories and equipment as previously requested in the department budget recently submitted to Mr. Donald P. Allan.

The University and State have made a large investment in new physical facilities and it would appear prudent to provide the additional staff necessary to make effective use of this facility. Also, in accepting a $265,900 Graduate Training and Research Facilities Grant from the National Science Foundation we have a strong obligation to maximize it in a strong graduate training program. We have the potential of becoming a very strong and important Food Science and Technology and Restaurant and Hotel Management Center for Massachusetts and the New England area and major efforts are being and will be directed in that direction.

FORESTRY & WILDLIFE
MANAGEMENT

5. Faculty Professional Activities and Publications
   a. Dr. Harold B. Gatslick - Chairman, Section on Treatments and Coatings, Forest Products Research Society; Secretary, New England Kiln Drying Association; and Educational Coordinator, Northeastern Retail Lumber Dealers Assoc.
   b. Prof. Charles R. Lockard, Chairman, Section on Wood Drying, Forest Products Research Society.
   c. Prof. John H. Noyes, Chairman, New England Section, Society of American Foresters.
   d. Prof. Arnold D. Rhodes, Vice-Chairman and Chairman-elect, Council of Forestry School Executives.

Publications

(See attached list)

6. Major Accomplishments
   a. Launching of our program in Fisheries Biology. Historically speaking the work in fisheries was established earlier but the beginning of an organized graduate program did not occur until this year when the Cooperative Fishery Unit started to function to full capacity in conjunction with our own staff. We now have 10 graduate students including one from Uganda, and a viable undergraduate program.

   b. Continued cooperation with the Berkshire County Industrial Development Commission in its efforts to promote the use of the County's forests for support of industry and for recreation. Two studies have been completed during the year--one on the characteristics and attitudes of forest land owners, and the other on the feasibility of establishing a particleboard plant in the County.

   c. Organization and conduct of a three-day symposium on establishment of forest trees by direct seeding. This was a pioneering venture in the Northeast, attended by forest scientists from many of the eastern states and Canada. The proceedings of the symposium have been edited and submitted to the printer.

   d. Initiation of three projects under the recently passed McIntire-Stennis Act providing federal funds for research in the areas of forestry, wildlife management, wood technology and related fields.

7. Special Projects--expansion of work begun late last year on the causes of the decline of sugar maples in Massachusetts, an interdepartmental research project supported by a special state appropriation.

7. Faculty Participation, Activities, and Publications

a. Dr. Theodore C. Darlington - Chairman, Section on Treatments and Coatings, Technical Association Pulp and Paper Industry, New England Section, Spring Meeting, Manchester, New Hampshire.

b. Prof. Charles R. Lockard, Co-Chairman, Session on "Wood Drying," Forest Products Research Society.

c. Prof. John H. Joyce, Chairman, New England Section, Society of American Foresters.

d. Prof. Arnold D. Rhodes, Vice-Chairman and Chairman-elect, Council of Forestry Local Executives.

Publications

(See attached list)

8. Major Accomplishments

a. Planning of new program in Fisheries Biology. Historically speaking the work in fisheries was established earlier but the opportunity of an organized graduate program did not occur until late year when the Cooperative Fishery Unit stepped to functions to full capacity in conjunction with our own staff. We now have 10 graduate students in residence from abroad and a viable undergraduate program.

b. Continued cooperation with the Berkshire County Industrial Development Commission in its efforts to promote the use of the county's forests for industry and for recreation. Two studies have been completed mainly in a year--one on the characteristics and attitudes of forest land owners, and the other on the feasibility of establishing a particleboard plant in the County.

c. Organization and conduct of a three-day symposium on metabolism of mineral ions by higher plants. This was a culmination feature in the Morrisean, attended by forest scientists from many of the western states and Canada. The proceedings of the symposium have been edited and submitted to the printer.

d. Initiation of three projects under the recently passed Hatch-Clarke Act providing federal funds for research in the areas of economy, wildlife management, wood technology and related fields.

9. Special Projects-organization of work begun into last year on the uses of the heating of sugar maples in-New England, in industry-sponsored research projects supported by a Federal state cooperation,

8. Future Plans and Needs

a. Expansion of activities in our Planning and Resource Development Program. An additional staff man in this area will report in September, and further support can be expected when an agricultural economist returns from sabbatical, and the new heads report in Landscape Architecture, and Agricultural and Food Economics.

b. Expansion of McIntire-Stennis research in wood science and technology, and wildlife management (assuming funds are available).

c. Submission of a proposal to initiate a Ph.D. program.

d. Facility needs--an animal house and aviary on the Tilson Farm. This structure has been approved and designed but no appropriation has yet been requested.

e. Personnel needs--an additional staff man in wood technology, and two laboratory technicians to assist with research activities.

Arnold D. Rhodes
Department Head

g. Future Plans and Needs

e. Expansion of activities in our Planning and Resource Development Program. An additional staff man in this area will report in September, and further support can be expected when an agricultural economist returns from sabbatical, and the new Dean's report in January on agriculture, and agricultural and food resources.

f. Expansion of Multiple-Cropping research in rice culture and technology, and village management (assuming funds are available).

c. Submission of a proposal to institute a Ph.D. program.

d. Possibility research--an animal house and aviary on the Tilson Farm. This adventure has been approved and designed but no appropriation has yet been requested.

e. Personnel needs--an additional staff man in food technology, and two laboratory technicians to assist with research activities.

Harold E. Riecke
Vice-President Elect

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To: J. Richard Beattie

From: Merle L. Howes

Subject: Annual Report July 1, 1964 to June 30, 1965

5A. PUBLICATIONS

1. A Leader's Guide - Massachusetts 4-H Horse Shows - 4-H Publication 136
   Marvin W. Boss, Associate Professor, 4-H

2. 4-H Leader's Guide - Citizenship Project
   4-H Leader's Guide - Liberty and the Law
   4-H Member's Guide - Citizenship in the Home
   Citizenship in the Club
   Citizenship in the Community
   Citizenship in the State
   Citizenship in the Nation
   Citizenship in the World
   4-H Leader's Guide - Creative Handicrafts
   4-H Member's Guide - Adventures in Food Science
   Mildred L. Howell, Associate Professor, 4-H

3. Development of 4-H Community Organizations in Massachusetts, Extension Circular 152
   William W. Metcalfe, Assistant Professor, 4-H

B. PROFESSIONAL ACTIVITIES

1. Merle L. Howes, Professor, 4-H

   a. Participated at Latin American Rural Youth Leaders' Seminar, United Nations Building, New York City.

   b. Member of Planning Committee for 1965 National Meeting of State 4-H Staff Members.

   c. Appointed by Governor Volpe to the Massachusetts Committee on Children and Youth.

   d. Actively participated in the following fraternities and professional associations: (1) Epsilon Sigma Phi
   (2) Alpha Zeta
   (3) Phi Delta Kappa
   (4) Massachusetts Federation of Extension Workers

2. Marvin W. Boss, Associate Professor, 4-H

   a. Served as Chairman of the Planning Committee for 12-state conference of Cooperative Extension Service Youth Staff Members. Fifty-five professional staff members participated in this conference which emphasized the role of the volunteer leader in Extension Youth programs. The conference was held in New York City, March 23-25.

   b. Served as Chairman of a committee which directed a twelve-state study of the tenure of volunteer 4-H leaders. This study, which was completed during the year, provides valuable information for re-defining the role of the volunteer 4-H leader and for broadening the opportunities for use of volunteers in support of this educational program.

3. Mildred L. Howell, Associate Professor, 4-H

   a. Western Massachusetts Home Economics Association Conference, Pittsfield, Massachusetts.

   b. Northeastern State 4-H Leaders Conference, New York City, New York.

   c. Governor's Conference on Youth, Boston, Massachusetts.

   d. Tri-State Nutrition Conference, University of Massachusetts, Amherst, Massachusetts.

   e. Massachusetts Youth Citizenship Conference, Bridgewater, Massachusetts.

4. William W. Metcalfe, Assistant Professor, 4-H

   a. Completing work on Ph.D. Program, University of Chicago.

   b. Participated in the Adult Education Association of Massachusetts Annual Conference, Burlington, Massachusetts.

   c. Participated in the Northeast U.S. Extension Directors and 4-H Leadership Tenure Study Conference, New York, New York.

   d. Appointed to Leader Program Committee (Extension Committee on Organization and Policy of the Land Grant College Association) for 1965 National 4-H Club Congress.

6. MAJOR ACCOMPLISHMENTS

A. Established a 4-H Program on Nantucket Island

This work involved several meetings with adult leadership on the Island to define the 4-H program, and a survey among eligible Island youth to determine the extent of interest in 4-H. As a result of these efforts, an adult 4-H Committee and three local 4-H Clubs have been organized. It is anticipated that the enrollment will level off at about 100 to 150 members.

B. Actively involved in implementing the Economic Opportunity Act by:

1. One staff member appointed by Governor Peabody to serve on the Commonwealth Service Corps Advisory Council,

2. One staff member, working through the County Extension Service, has actively supported the creation of Community Action Committees in six different counties.

C. Conducted three studies to aid in Program Development

Three studies relating to out-of-school educational programs for youth are currently being completed. Two of these studies relate to youth of low-income families; one considered youth in the Federal Housing project in Springfield, and the second is a joint study with the Campfire Girls Association in Boston.

A third study nearing completion relates to science interest among 1,010 tenth grade students in seven Western Massachusetts high schools.

D. Citizenship Education

A special citizens' education program was developed and carried out in cooperation with County Extension staff members. Approximately 10,000 young people participated in this program which covered the role of responsible citizenship in the community, state, nation and the world.

As a result of this work the Freedoms Foundation, located at Valley Forge, Pennsylvania, has awarded the George Washington Medal of Honor to the Massachusetts 4-H program "For its concentrated CITIZENSHIP program to train professional and volunteer leaders to motivate programs of greater responsibility at the grassroots level and to promote personal acceptance of those responsibilities of all citizens."

7. SPECIAL PROJECTS

A. Conducted educational programs for youth leaders from Israel, Brazil, Peru, Philippines, Nigeria, Malawi, Sierra Leone, Uganda, Northern Rhodesia. The major emphasis in these programs related to the methods and principles of effective Extension work.

B. Conducted a bicycle safety program in cooperation with the Western Massachusetts Safety Council and the Worcester Safety Council. This experimental program, managed locally by the Police Departments and School Superintendents, reached 70,000 young people with six to eight hours of bicycle safety instruction. The results indicate that this model could serve other aspects of the 4-H program and could aid materially in reaching more youth.

C. Introduced the "4-H Foundation Quarterly" as a means of systematically reporting on the Massachusetts 4-H program. This eight-page publication is prepared and distributed by the Massachusetts 4-H Foundation to 2,500 business, industry and community leaders four times each year.

D. Conducted a 4-H TV Science Club using facilities of WTEV-TV Channel 6, New Bedford. This series consisted of 13½ hour program relating to demonstrations of certain scientific principles. This work was done in cooperation with the University of Rhode Island. About 3,000 young people "enrolled" in the program by writing to the TV station and requesting materials to be used at home in order to follow the "4-H Leader" on TV.

8. FUTURE PLANS AND NEEDS

A. University-Wide Assistance

One of the immediate needs for this Department is a recognized University plan and policy for involving University Faculty other than those in Agriculture and Home Economics in the 4-H program. Many faculty members outside of these two schools are contributing on a short-term basis. Staff assistance is needed on a long-term basis, committed to establishing new programs which are consistent with the changing needs and interests of youth in the Massachusetts communities. For example, the areas of drama, music and art would add a new dimension to 4-H and attract a large audience. Our experimental efforts in these areas indicate there is a ready audience in the Massachusetts communities.

However, staff assistance on a long-term basis is needed to fully develop these and other new programs.

B. 4-H Studies

Continue to conduct studies relating to program content and methods of conducting Extension Youth Work. In order to do this work at a reasonable level, it will be necessary to continue the present plan of financing two "Graduate Assistants - Extension" positions. These temporary positions aid in the professional development of the student and makes a valuable contribution to the 4-H program.

C. 4-H Club Center

Continue to explore the feasibility of building a 4-H Center as a facility to be used in conducting education programs for youth and leaders of youth groups. A site planner has been employed by the Massachusetts 4-H Foundation and site reconnaissance work is currently underway.

D. Science Content

Continue to expand the science content of the 4-H program. Emphasis is currently on plant and animal and home economics sciences. As science emphasis expands it will be necessary to rely on professional services other than those offered by the College of Agriculture. This is especially true of many of the physical sciences.

NOT CIRCULATING

DIVISION OF HOME ECONOMICS
ANNUAL REPORT
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The two programs cited in this year's report, increased Continuing Education Workshops, Programs with Low-Income Families and professions working with the families are areas which will grow in the future. The Division's staff will be devoting even more time to each area next year.

Continuing Education Workshops

Citizens of Massachusetts are like those of other parts of the nation in asking for and attending sessions or workshops which contribute to continuing their education. Over the past five years there has been a yearly increase in the number of workshops taught by the Division specialists on topics related to subjects of Home and Family Life. The workshop is without credit but has many of the characteristics of course work, as a reading list, assignments, and reports. The typical workshop has from four to six sessions of two to three hours, with a "signed up" enrollment ahead of the first session. A year ago there were 40 workshops conducted by the Division with an enrollment of 750. This year there were 68 workshops with an enrollment of 1612.

The greater number of workshops are attended by lay women and men; a percent were held at the request of professionals, as Home Economics teachers in Junior and Secondary Schools, and City and Town Public Welfare Workers. Workshops were also held for lay leaders of Youth, Red Cross and indigenous leaders working in poverty.

The state two-day Homemakers College was the Division's only workshop on the University of Massachusetts campus. Resident faculty from History, English and Home Economics departments, plus two Division specialists, taught classes. The response from citizens of the Commonwealth was favorable in attendance and in appreciation of the quality of the class sessions. Plans are to repeat the Homemakers College in 1966.

Program with Low-Income Families

One three-year pilot project in South End, Boston, to test Extension methods with low-income clientele, has done more to bring about program change in the entire state than any other one effort of the Division in past years.

The Division staff has spent a fourth to a third of their time in the past year on training professionals who work with the low-income family, in direct teaching of the low-income, and in preparing educational materials for their use. A review of the year's teaching shows the staff held 37 training sessions for professionals and 20 for indigenous leaders.

All counties have one or more programs with low-income families. Recently the County Directors of the Extension Services voted to plan for one-fourth of the

time of the County Agents in Home Economics to be devoted to programs in co-operation with agencies working with the less advantaged. The Boston pilot project gave a pattern for the Division to follow and was most timely in view of the National interest in poverty. The Division has much to offer in guidance on teaching materials, teaching methods and understanding the low-income family.

County Extension Services are now involved in writing proposals for Economic Opportunity monies which will contribute to the support of increased Home Economics education with the families. The Division staff will be giving some guidance to these programs.

Winifred Eastwood, Head
Extension Division of Home Economics

May 1965

Department of Landscape Architecture

Annual Report July 1, 1964, to June 30, 1965

Professional Activities of the Staff

The entire staff of the Department of Landscape Architecture has participated in a variety of professional activities in addition to their normal teaching duties:

University oriented: Professor Hamilton has been developing plant lists and reviewing planting plans for the firm of Sasaki, Dawson, Demay Associates in a cooperative attempt to create a University Arboretum. Professors Bacon and Procopio are continuing their work with the University Master Planning Committee. Professor King and Mr. Whitney have been studying the problem of standardizing Park Administration curricula throughout the country. Professor Mosher spent the past summer visiting parks in preparation for a new course he is teaching in Park Design.

Profession oriented: Professors Otto and Bacon continue to contribute freely of their time and professional knowledge to the Amherst Planning Board. Mr. Fabos, who developed the concept and directed the design of the Olmsted exhibit, has now, with a co-worker, completed work on a booklet commemorating Olmsted and the centennial of landscape architecture as a profession in this country. This should be in print (possibly by the U. of M. Press) this coming year.

Professor Kantianis continues in his architectural practice. His latest contribution to church architecture is now under construction

at Manchester, New Hampshire.

Professor Kent and Mr. Crane have been gaining field experience through part time work with private professional offices, giving these firms additional strength with their fine design talents. Professor Procopio was again consultant to the Connecticut Valley Flower Show.

The entire design staff collaborated on a report to Representative Fleming concerning recommendations for the landscape treatment of the State House grounds.

Major Accomplishments and Special Projects:

The major work of the department is teaching and its major accomplishment each year has been its steady improvement in the quality of its teaching.

The Accrediting Team of the American Society of Landscape Architects confirmed the improvement of quality by recommending a continuance of accreditation for the next five-year period.

The teaching program was given additional impetus with an expanded visiting lecturer program. Credit for the expansion of the program must be given Dean Spielman who made extra funds available, and credit for the fine quality of speakers is due in large part to Mr. Fabos.

One of the outstanding programs of the department was the showing of the Olmsted exhibit during the month of January and the panel of experts who participated in the official opening of the exhibit. Among those participating were Professors Charles Eliot and Donald

Olson of Harvard University, Professor Leo Marx of Amherst College and Professors Paul Norton and Mario DePillis of this institution.

Two conferences were held this year, one, the annual meeting of the University of Massachusetts Landscape Architects's Association, and the second, a meeting of the Boston Society of Landscape Architects. The subject matter of both conferences was directed to the students as well as to the conferees.

A few comments must be directed to the teaching program itself. Experimentation continues in relating the work of closely allied courses in both the junior and senior years. While no ideal answer has yet been found, significant progress has been made in demonstrating to the student of landscape architecture that the detailing of landscape construction and planting is interdependent with conceptual thought in overall design. The "technical" courses are thus becoming part and parcel of the conceptual thinking and the "technical" process contributes to the quality of the creative idea.

The magnitude of involvement by individual students and the quality of study of existing projects as background for current problems was vastly improved this year by formalization of this work and the production by the students of two booklets, Urban Ecology and New Communities. These are strictly student productions. While they lack the quality of professional publications, they have provided the students with two very valuable experiences: one, the study of applied landscape architectural theory and, two, the experience

of producing drawings and text for inclusion in a brochure.

In another area, an unofficial committee of staff members from interested departments and from landscape architecture is studying the feasibility of an inter-disciplinary curriculum in Outdoor Recreation.

The illness this past semester of Professor Otto has slowed the continued growth of various programs of the department. However, the staff looks forward to Professor Otto's return next fall and a strengthening of its teaching program with his return to full time teaching.

The final accomplishment of the Department of Landscape Architecture to be mentioned is essentially concerned with the future of the department. With Professor Otto's decision to step down as Department Head, it became necessary to find a replacement. The naming of Ervin H. Zube as Department Head, effective September 1, 1965, marked the end of an eight-month search which combed the entire country.

Future Plans and Needs

The major need is for more physical space. Even now the lack of space is beginning to limit some aspects of the academic program; for instance, the making of study models all but cancels all other activity in the same laboratory; major juries for problem solutions must be held in some other building, as there is no room in Wilder Hall which can accommodate the number of exhibits and people which attend; and the number of qualified applicants for graduate work

is increasing, but we have to limit enrolment to approximately 15 students. This results in not using faculty time efficiently at this level.

It is difficult to project the future plans of a new department head, yet certain areas appear destined to develop regardless of who is head. Certainly the undergraduate curricula in Landscape Architecture and Park Administration will be refined even further. The Pre-planning option needs further study and strengthening. Unquestionably, this is one of the areas which will receive immediate attention.

New teaching methods must be developed to meet the demands of higher enrolment. In our Stockbridge service courses we are already at a point where an equally effective substitute for multiple sections must be developed.

Our graduate program has an enrolment at this point which justifies a reorganization of that curriculum. When additional space becomes available, the number of students can be increased, which in turn will increase efficiency of teaching at this level.

Planning should be developed at the graduate level because of the tremendous need throughout the world for people with such training. Such a program will bolster the graduate curriculum in landscape architecture and will relate to the Planning and Resource Development Program. Lack of space has been a deterrent to the development of this program, but the need is so great that some steps must be taken in the very near future regardless of

the physical inconvenience such expansion may cause.

A research program is essential to the development of curricula of excellence. Research in landscape architecture has been essentially non-existent until very recently. The department has recently submitted a proposal for a cooperative research project with the Massachusetts Department of Public Works and the Bureau of Public Roads. Another proposal is being developed for a regional study of the Connecticut River Valley in cooperation with the Planning and Resource Development Program.

In another phase of the profession, it is important that research be conducted into determining strengths and weaknesses of various types of existing projects. This department must develop with the departments of Sociology and Psychology methods of evaluating the physical design of these projects, in order that future design will meet the needs of people more closely.

The new department head was selected partially on the basis of his research experience. It is the staff's expectation that research will become an important part of the department and a strengthening force of its teaching program. Obviously, more staff will be needed as these research programs are established.

The area of extension is more difficult to forecast. It would appear, however, that an extension program of great merit could be developed in the area of planning principles and practices, such as zoning goals, the need for subdivision controls, the need for open space systems, and the like. Such a service, aimed at the

general public, could vastly improve the acceptance of planning programs and would give the general public some basis on which to judge quality.

The profession of Landscape Architecture is 100 years old this year. The practice is as old as the earliest civilization. Whenever man located his first hut, or changed the topography or moved a plant, he was practicing landscape architecture. This country is beginning to appreciate the knowledge and talents that a landscape architect has to offer. The demands for his services are increasing to the point that they cannot all be met. More people are needed in the field.

This department is the second oldest department of landscape architecture in the country. It looks forward in this, the second century of the University and of Landscape Architecture, to expanded enrolment, expanded programs and continued excellence in an expanding profession.

Paul H. Precopio for Raymond H. Otto

ANNUAL REPORT

Department of Plant and Soil Sciences
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5.a. Faculty Research Publications:

Anderson, J. F., J. S. Bailey, Mack Drake, George Olanyk, D. L. Field. 1964. Mineral content of strawberry leaves as influenced by rate and placement of fertilizer and lime. Proc. Amer. Soc. Hort. Sci. 85: 332-337.

Baker, J. H., W. A. Beetem, and J. S. Wahlberg. 1964. Adsorption equilibria between earth materials and radionuclides, Cape Thompson, Alaska. U.S. Geological Survey Open File Report, 40 p.

Barker, A. V. and R. J. Volk. 1964. Influence of carbonates on growth and nitrogen distribution patterns in roots and shoots of bean plants subjected to ammonium nutrition. Agron. Abstracts 56: 27.

Colby, W. G., M. Drake, D. L. Field and G. Kreowski. 1965. Seasonal pattern of fructosan in orchard grass stubble as influenced by nitrogen and harvest management. Agron. Jour. 57: 169-173.

Drake, M. and W. G. Colby. 1964. Relationships of fructosan to harvest management, level of fertilizer N, and recovery of orchardgrass. 27th Ann. Rpt. Northeast Pasture Research p. 46-47.

Havis, J. R. 1964. Freezing of rhododendron leaves. Proc. Amer. Soc. Hort. Sci. 84: 570-574.

Havis, J. R. 1965. Cold injury on hardy rhododendron. Bul. Amer. Rhododendron Soc. 19: 22-23.

Havis, J. R., W. J. Bennett and R. D. Fitzgerald. 1965. Herbicide combinations for summer weeds in nursery crops. Proc. N.E. Weed Cont. Conf. 19: 155-159.

Lachman, W. H. 1965. Release of sweet corn inbred Ma-21565 by the Mass. Agr. Expt. Sta. Vegetable Improvement Newsletter 7: 11-12.

Lord, W. J., L. F. Michelson, D. L. Field and G. E. Wilder. 1965. What we have learned from irrigation studies. 71st Ann. Rpt. of Proc. Mass. Fruit Growers' Assoc. pp. 23-31.

Lord, W. J. and F. W. Southwick. 1964. The susceptibility of two Delicious strains to some pre- and post-harvest physiological disorders. Proc. Amer. Soc. Hort. Sci. 84: 65-71.

Maynard, D. N. and W. H. Lachman. 1965. Nutritional studies with chlorophyll deficient tomato mutants. Tomato Genetics Cooperative 15: 45-46.

Michelson, L. F. 1965. Teaching basic principles - a definition. The Agricultural Education Magazine, Vol. 37 #8, pp. 225-226.

Michelson, L. F. and W. J. Lord. 1964. The distribution of apple roots in the soil profile of typical Massachusetts orchard drumlin soils. Proc. Tree Wardens, Arborists and Utilities Conf. pp. 44-46.

Michelson, L. F. and W. J. Lord. 1965. Moisture extraction pattern and the rooting habits of apple trees. 71st Ann. Rpt. of Proc. Mass. Fruit Growers' Assoc. pp. 63-67.

Michelson, L. F. and W. J. Lord. 1965. Weed control as a factor in soil moisture conservation under apple trees. Proc. 19th Ann. Meeting N.E. Weed Cont. Conf. pp. 118-120.

Oohara, H., M. Drake, N. Yoshida and K. Fukunaga. 1964. Study of the growth and productivity of the seedling and fertilizing methods of forage crops. Proc. 9th International Grassland Congress, Brazil.

Southwick, F. W., W. J. Lord, W. D. Weeks, G. W. Olanyk and A. W. Rossi. 1965. Preliminary studies concerning the influence of B-995 on flesh firmness, red color, water core and growth rate of apples. 71st Ann. Rpt. of Proc. Mass. Fruit Growers' Assoc. pp. 36-40.

Vengris, Jonas. 1965. Seasonal occurrence of Echinochloa crusgalli (L.) Beauv. in potato fields in the Connecticut River Valley, Mass. Abstract. Proc. N.E. Weed Cont. Conf. 19: 311.

Vengris, Jonas. 1965. Use of grass-killing herbicides in establishing grass-legume mixtures. Agronomy Jour. 57: 59-61.

Weeks, M. E. and H. M. Yegian. 1965. The place of silage in a forage utilization program: researches on production problems and evaluation. Paper accepted for publication in Proc. IX International Grassland Congress, Sao Paulo, Brazil.

White, R. P., J. H. Baker, and M. Drake. 1965. Excised root reaction with Ca-H bentonite. Soil Science 99: 205-212.

Zak, J. M. and E. Bredakis. 1964. Sand dune erosion control at Provincetown, Mass. Selected for publication in the Highway Research Board Publication for year 1965.

b. Major Professional Activities:

(1) Dr. John Baker was invited to attend "Conference on Radionuclides in Ground Water", Las Vegas, Nevada, October, 1964.

(2) Dr. W. G. Colby - Lecturer and Consultant at Obihiro Zootechnical College at Obihiro, Japan, on a Fulbright Research Grant.

(3) Dr. Mack Drake - Consulting Editor, Soil Science and Associate Editor of the Agronomy Journal.

(4) Dr. J. R. Havis - Presented invitational paper, "Desiccation Damage to Rhododendron in the Winter", at Symposium on Cold Climate Horticultural Research, Harvard University, January, 1965. (Sponsored by the New England Section of the American Society for Horticultural Science).

(5) Dr. George Goddard - Served as major advisor to our student, Everett Emino, and directed his special problem. Results of this work were presented in a paper entitled, "Shoot Apex Development in the Carnation (Dianthus caryophyllus) as Influenced by Daylength", at the national meeting of the Collegiate Branch of the American Society for Horticultural Science during the A.I.B.S. meetings at the University of Colorado, Boulder. This paper won first prize and the L. W. Ware Award (Certificate plus $100.00) as the outstanding undergraduate paper presented at these meetings.

(6) Dr. D. N. Maynard - Awarded an Aid to Education Grant ($2,500.00) at the Gulf Research Development Company by the Gulf Oil Corporation Foundation for two months' summer study and research.

(7) Dr. F. W. Southwick - Awarded gold medal and $1,000 by the Massachusetts Society for Promoting Agriculture in recognition of his contributions toward the welfare of agriculture (January, 1965).

(8) Dr. M. E. Weeks - Invited by the Agronomy Department, Cornell University, to assist their staff for a six month period in the establishment of a sugar beet program being initiated in New York State.

6. Major Accomplishments During 1964-65:

a. The hiring of Dr. A. V. Barker, plant physiologist, Dr. W. J. Bramlage, post-harvest physiologist and Dr. H. V. Marsh, Jr., biochemist. I believe these three young men represent a very fine addition to this department and the University. They have the ability to provide us with some outstanding teaching and research in the years ahead.

b. Development and equipping of an excellent plant physiological and biochemical research laboratory for use of our staff and graduate students.

c. A marked increase in our graduate student emphasis. Enrollment rose 55 per cent in 1964-65.

d. This department was asked to provide the Stockbridge majors in Arboriculture and Park Management with a course in beginning botany. Drs. Goddard, Barker and Bramlage took over this assignment and did an excellent job with approximately 60 students. We anticipate continuation of this offering not only for the Arboriculture and Park Management group but also one other.

7. Special Projects or Programs;

The major special programs with which this department is intimately involved were the Annual Turf Conference and the Annual Meetings of the Massachusetts Fruit Growers' Association. The Turf Conference attracted over 500 people and about the same number attended the annual summer and winter meetings of the Massachusetts Fruit Growers' Association. The program planning of these highly successful educational meetings is handled by members of this department.

8. Future Plans and Needs:

a. The primary need for the efficient operation of the Department of Plant and Soil Sciences is a new, modern building. This department is not only housed in three separate buildings up to a half mile apart, but also many of our facilities are antiquated. In lieu of a new physical plant within the next five years, major assistance should be provided to modernize several of our teaching and research facilities in Stockbridge and Bowditch Halls. Plans for much of the needed alterations in our facilities have been submitted.

b. In order to maintain our teaching and research programs in support of important horticultural and agronomic industries, a new storage facility at the Horticultural Research Center and a Crops and Shops building at the field research area in South Deerfield are highly essential as replacements for old campus buildings which are to be torn down or modified for other purposes in the near future.

c. At the present time we are actively trying to hire a well trained soil physicist to fill the vacancy of Dr. D. V. Waddington. One of the needs associated with this position are teaching and research facilities for a man with such training. These facilities can only be provided through the renovation of existing space in Stockbridge Hall.

Also, there is great need for the upgrading of our technical assistants from grade 8 to grade 11. It is time that many of the people in this category, who have a variety of laboratory and trade skills were paid more than painters instead of less. In addition, of the eight members of our clerical staff all but three have grade classifications of 2 or 3, the lowest possible levels. With these low grade classifications we are constantly losing competent clerical help to other departments with higher

grade positions. In effect, we are training clerical help for others.

d. We now have a nucleus of young, well trained scientists doing teaching and research in the area of soil chemistry, soil microbiology, plant nutrition, post-harvest physiology and plant biochemistry. Their needs for modern teaching facilities and instrumentation are many and urgent. In the area of equipment, we need such things as plant growth chambers, an amino acid analyzer, modern class laboratory benches and associated facilities, and an available electron microscope.

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5). List of Publications Published and in Press since July 1, 1964

Allaire, F. R. and S. N. Gaunt. 1965. First Lactation Contemporary Comparisons as Indicators of Influences on Daughter Records Used for Sire Evaluations. Journal of Dairy Science 48: 454-461.

Black, D. L. and R. T. Duby. 1965. Effect of Oxytocin Epinephrine and Atropine in the Oestrous Cycle of the Cow. Journal of Reproduction and Fertility 9 (1): 3.

Borton, A., A. Jaworski and J. E. Nellor. 1965. Factors Influencing the Fertility of Naturally and Artificially Mated Swine. Michigan State University Agricultural Experiment Station Research Bulletin 8.

Crawford, R. D. and J. R. Smyth, Jr. 1964. Studies of the Relationship Between Fertility and the Gene for Rose Comb in the Domestic Fowl. 1. The Relationship Between Comb Genotype and Fertility. Poultry Science 43: 1009-1017.

Crawford, R. D. and J. R. Smyth, Jr. 1964. Studies of the Relationship Between Fertility and the Gene for Rose Comb in the Domestic Fowl. 2. The Relationship Between Comb Genotype and Duration of Fertility. Poultry Science 43: 1018-1026.

Crawford, R. D. and J. R. Smyth, Jr. 1964. Social and Sexual Behavior as Related to Plumage Color in the Fayoumi Fowl. Poultry Science 43: 1193-1199.

Crawford, R. D. and J. R. Smyth, Jr. 1964. Infertility and Action of the Gene for Rose Comb in the Domestic Fowl. Canadian Journal of Genetics and Cytology 6: 298-303.

Crawford, R. D. and J. R. Smyth, Jr. 1964. Semen Quality and the Gene for Rose Comb in the Domestic Fowl. Poultry Science 43: 1551-1557.

Crawford, R. D. and J. R. Smyth, Jr. 1965. The Influence on Comb Genotype on Mating Behavior in the Domestic Fowl. Poultry Science 44: 115-122.

Duby, R. T., J. W. McDaniel and D. L. Black. 1965. Homotransplantation in the Hamster Uterus. Nature 205 (4972): 720.

Duby, R. T. and D. L. Black. 1965. Utero-ovarian Relationships in the Hamster. Endocrinology (In Press) (Abstract).

Fenner, H. 1965. Method for Determining Total Volatile Bases in Rumen Fluid by Steam Distillation. Journal of Dairy Science 48: 249-251.

Fenner, H. and H. D. Barnes. 1965. Improved Method for Determining Dry Matter in Silage. Journal of Dairy Science (In Press)

Foley, R. C., D. L. Black, W. G. Black, R. A. Damon and G. R. Howe. 1964. Ovarian and Luteal Tissue Weights in Relation to Age, Breed and Live Weight in Non-Pregnant and Pregnant Heifers and Cows with Normal Reproductive Histories. Journal of Animal Science 23 (3): 752.

Fox, T. W., R. D. Crawford and J. R. Smyth, Jr. 1964. Rose Comb: An Example of Operational Over-Dominance in the Domestic Fowl. Genetical Research 5: 379-383.

Gacula, M. C., Jr., S. N. Gaunt and R. A. Damon, Jr. 1965. Estimates of Age Effect on Milk Composition. To be presented at ADSA meetings, June 21, 1965 at the University of Kentucky.

Gaunt, S. N. and M. C. Gacula, Jr. 1964. Sire Progeny Differences in Milk Composition. Presented at the joint meeting of the Eastern Division of the American Dairy Science Association and the North Atlantic Section of the American Society of Animal Production, July 20-22, 1964. Journal of Dairy Science 47: 1459.

Gaunt, S. N., M. A. Goodwin Bartlett and W. L. Comstock. 1964. Comparison of Five Methods of Adjusting for Environmental Differences in Evaluation of Dairy Sires. Journal of Dairy Science 47: 1243-1248.

Gaunt, S. N. and M. C. Gacula, Jr. Variation in Milk Constituents for Five Breeds of Dairy Cattle. To be presented at XVII International Dairy Congress.

Grover, R. M. 1965. Poultry Production in Massachusetts, 1964. Extension Publication 429.

Hankinson, D. J. and S. N. Gaunt. 1965. Accuracy of Plastic Beads for Milk Density Measurement. Journal of Dairy Science. (In Press)

Howe, G. R., R. C. Foley, D. L. Black and W. G. Black. 1964. Histological Characteristics of the Pituitary Glands and Reproductive Tracts of Normal and Hormone-Treated Prepuberal Calves. Journal of Animal Science 23 (3): 613.

Larose, R. N. and M. Sevoian. 1965. Avian Lymphomatosis. IX. Mortality and Serological Response of Various Age Chickens to Graded Doses of T Virus. Avian Diseases. (In Press)

McDaniel, J. W. and D. L. Black. 1965. Allografts and Xenografts of Oviduct to the Cheek Pouch of the Syrian Hamster. Journal of Reproduction and Fertility. (In Press)

Mraz, F. R., P. L. Wright, T. M. Ferguson and D. L. Anderson. 1965. Fission Product Metabolism in Hens and Transference to Eggs. Health Physics. (In Press)

Olesiuk, O. M., H. Van Roekel and N. K. Chandiramani. 1965. Control of Experimental Mycoplasma gallisepticum Infection in Young Chickens with Tylosin and Other Antibiotics. Avian Diseases 9: 67-77.

Sevoian, M., R. N. Larose and D. M. Chamberlain. 1964. Avian Lymphomatosis. VI. A Virus of Unusual Potency and Pathogenicity. Avian Diseases 8: 336-346.

Sevoian, M. and R. N. Larose. 1964. Avian Lymphomatosis. VIII. Pathological Response of the Chicken Embryo to T Virus. National Cancer Institute Monograph No. 17.

Shaw, F. R., C. T. Smith, D. L. Anderson, W. J. Tischang, W. H. Ziener and J. Hurny. 1964. The Effects of Coumaphos on Poultry and its Residues in Tissues and Eggs. Journal of Economic Entomology 57: 516-518.

Smith, C. T., F. R. Shaw, D. L. Anderson, R. S. Callahan, W. J. Fischang and W. H. Ziener. 1965. Residues of Ronnel in Eggs of Poultry. Journal of Economic Entomology. (In Press)

Smith, R. E., G. W. Clark, I. M. Reynolds, and R. A. Damon, Jr. 1964. Serologic Survey for Infectious Bovine Rhinotracheitis and Bovine Viral Diarrhea Antibodies. Journal of the American Veterinary Medical Association (JAVMA) 145: 40-42.

Smith, R. E., G. W. Clark and I. M. Reynolds. 1964. A Technique for the Inoculation of the Middle Uterine Artery of Sheep. American Journal of Veterinary Research 25: 1769-1770.

Smith, R. E., I. M. Reynolds and G. W. Clark. 1965. Experimental Leptospirosis in Rams. Cornell Veterinarian. (In Press)

Smyth, J. Robert, Jr. 1965. Allelic Relationship of Genes Determining Extended Black, Wild Type and Brown Plumage Patterns in the Fowl. Poultry Science 44: 89-98.

Snedecor, J. G. and W. J. Mellen. 1965. Thyroid Deprivation and Replacement in Chickens. Poultry Science 44: 452-459.

Somes, R. G., Jr. and J. R. Smyth, Jr. 1965. Feather Phaeomelanin Intensity in Buff Orpington, New Hampshire and Rhode Island Red Breeds of Fowl. 1. Age, Sex and Feather Growth Effects. Poultry Science 44: 40-46.

Somes, R. G., Jr. and J. R. Smyth, Jr. 1965. Feather Phaeomelanin Intensity in Buff Orpington, New Hampshire and Rhode Island Red Breeds of Fowl. 2. Inheritance Studies From Whole Feather Extracts. Poultry Science 44: 47-52.

Somes, R. G., Jr. and J. R. Smyth, Jr. 1965. Feather Phaeomelanin Intensity in Buff Orpington, New Hampshire and Rhode Island Red Breeds of Fowl. 3. Relative Quantities of Fractionated Phaeomelanin Pigments. Poultry Science 44: 276-282.

Tzianabos, Theodore and G. H. Snoeyenbos. 1965. Some Physiochemical Properties of Turkey Hepatitis Virus. Avian Diseases 9 (1): 152-156.

Van Roekel, H., C. F. Smyser and G. H. Snoeyenbos. 1964. Forty-fourth Annual Report of Pullorum Disease Eradication in Massachusetts. Massachusetts Agricultural Experiment Station Bulletin 200.

Van Roekel, H. 1964. Report of the Pullorum Disease Testing Results. Presented at the 36th Annual Meeting of the Northeastern Conference on Avian Diseases. Avian Diseases 8: 666-667.

Van Roekel, H. 1965. Pullorum Disease. Diseases of Poultry, H. E. Biester and L. H. Schwarte, Editors, 5th Edition, Iowa State University Press.

Van Roekel, H. 1965. Avian Encephalomyelitis (Epidemic Tremor). Diseases of Poultry, H. E. Biester and L. H. Schwarte, Editors, 5th Edition, Iowa State University Press.

Wentworth, B. C. and W. J. Mellen. 1964a. Immune Response to Testicular Antigen in Male Japanese Quail. Poultry Sci. 43: 1374 (Abstract)

Wentworth, B. C. and W. J. Mellen. 1964b. Active and Passive Immunization of Female Japanese Quail with Testicular Antigen. Poultry Science 43: 1375 (Abstract)

Wentworth, B. C. and W. J. Mellen. 1964c. Active Immunity Induced and Spermatogenesis Suppressed by Testicular Antigen in the Male Japanese Quail (Coturnix Coturnix Japonica). Journal of Reproduction and Fertility 8: 215-223.

Wentworth, B. C. and W. J. Mellen. 1965. Anti-testis Antibodies and Fecundity in Female Japanese Quail. Physiological Zoology (In Press)

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6). Major Accomplishments of the Department of Veterinary and Animal Sciences.

Instruction

The new Department of Veterinary and Animal Sciences has made prestigious progress in the area of resident instruction. The combined curriculum in the Animal Sciences initiated two years ago continues to be well received by both students and faculty. The combined courses, presented by excellent teachers, have resulted in larger classes due to both the increased number of majors involved in the program and the interest of students from other departments and colleges.

Using the success of the four-year curriculum as a frame of reference, a faculty committee of the department has developed a combined Stockbridge two-year program in the Animal Sciences, combining the former Poultry Science and Animal Science options. In addition, a new sub-option in Laboratory Animal Management has been proposed for the senior year. The development of this program has been coordinated with the Animal Care Panel with the objective of obtaining certification for graduates as Laboratory Animal Technicians. The increasing emphasis on biological research and animal experimentation will result in graduates of this option having excellent employment opportunities.

The graduate program has continued to flourish during the past year, and applications from new students interested in our program at Massachusetts has shown a four to five-fold increase. A greater emphasis on the organization of the graduate program along discipline lines, e.g. Animal Genetics,

Animal Physiology and Animal Nutrition, has been accomplished by the combined new department. The continued success of the graduate program is one of the highlights of the year, and special effort has been devoted to its qualitative and quantitative development by members of the graduate faculty. A committee of graduate faculty of the department has been developing a graduate program proposal for an option in Veterinary Science. This proposal is essentially complete and should be ready to forward to the Graduate Council in the near future.

Research

Research activity has been one of the major areas of department emphasis and effort. The year 1964-65 has been a highly productive one with 47 publications prepared and published since July 1, 1964. The list of these publications is included in Section 5.

These departmental research contributions represent an exceptional record of a scholarly scientific productivity. One outstanding researcher, Dr. Donald L. Black, has made a notable contribution to the basic knowledge and understanding of mammalian physiology of reproduction. He has received support and recognition for his work from the National Institutes of Health on the Population Council of the Rockefeller Foundation. He had the recent honor of presenting an invitational paper to an international symposium on Gamete Transport, Fertilization, and Preimplantation Mechanisms held at Vanderbilt University and sponsored by the Population Council.

The department's research efforts have been aided by three post-doctoral visiting scientists: Dr. Gustave Currie, working with Dr. D. L. Black; Tetsuro Komiyama, sponsored by the Japanese Atomic Energy Commission and working with Dr. W. J. Mellen; and Dr. David Roberts, working with Dr. H. Van Roekel.

Extension

All phases of the Extension program have demonstrated a high level of professional accomplishment under the able leadership of our Extension Coordinators: Dr. Stanley Gaunt, Dairy; Dr. D. Stern, Animal Diseases; Prof. R. M. Grover, Poultry; and Prof. B. Colby, Livestock. An important element in the success of the program has been in concept of regionalization of the county staff and the specialized professional competence of this field staff. Many successful programs of continuing education were conducted during the year and were well received by the commercial animal industries of the state and region.

The extension program leaders are making a special effort to provide for a coordinated approach to youth programs conducted with 4-H and F.F.A. It appears desirable to increase the science and biology content of these youth projects wherever feasible.

7). Special Projects and Programs

Two special cooperative research projects worthy of note are programs in the area of physiology of reproduction involving cooperative work between Dr. D. L. Black's research team and Dr. David Armstrong of Harvard University and also Dr. Eric Hahn of the Rochester School of Medicine. Both of these projects are mutually advantageous and are providing additional support for our animal physiology research efforts. Dr. Armstrong's project at Harvard is providing the funds for the post-doctoral program of Dr. Gustave Currie.

A substantial amount of time has been spent during the past year developing plans for the new South Deerfield farm area to replace our present campus facilities. One of the encouraging highlights of the past year has been granting of $127,375 by the National Science Foundation for

the development of facilities for graduate level research in avian biology. These funds combined with the state appropriation of $315,000 should provide an excellent research unit for our Poultry Research Center. The recognition of the quality of our avian biology research program by N.S.F. has been very gratifying, and the Foundation's tangible support should do much to further our quest for excellence.

8). Future Plans and Needs

The combination of the Poultry Science, Dairy and Animal Science and Veterinary Science departments into a consolidated Department of Veterinary and Animal Sciences has provided a template for significant academic progress. Although many administrative and personnel problems remain to be solved, a blueprint for excellence in resident instruction, research and continuing education is emerging.

The resident instruction program is well on its way toward sound educational objectives. Although continual review is always desirable and essential, the associate degree, bachelor of science, and graduate program curricula are now established on a combined coordinated basis. The two years of experience with the B.S. program in the animal sciences has demonstrated that the comparative approach to the teaching of the animal sciences represents sound educational progress.

For several years prior to the combining of departments, the research of the three departments had begun to concentrate on basic problem areas of animal and avian biology and diseases. This trend will continue as a result of growing graduate programs, nurture from Federal research granting agencies and the continued favorable recognition of basic research by the University. It is important that a commitment be made to an area of excellence that will provide a frame of reference for the delineation of future

major areas of research concentration. A Graduate Studies and Research Policies Committee of the department, representing the several basic discipline areas, has been studying the present research programs of the department and will provide faculty participation in determining future program direction. The areas of animal physiology and physiological genetics are at present a strong research area of excellence of the department.

The future needs of the department to achieve the evolving plans and commitments to excellence are:

(1) An overall plan to provide facilities to accommodate the combined new Veterinary and Animal Science Department so that maximum efficiency and progress can be obtained from the organizational change. An addition to Paige Laboratory has been requested as a 1966-67 budget item.

(2) The development of new animal facilities at South Deerfield to replace our present campus farm buildings.

(3) Immediate improvement in the laboratory facilities for instruction and research for Dr. Black's physiology program.

(4) Continued administrative support for the development of an animal science faculty that will be recognized for its academic excellence and productivity.

Respectfully submitted,

Thomas W. Fox

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Head of Department

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